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MENTAL HOSPITALS ADMISSION AND RELEASE DATA. COHORT STUDY OF FIRST ADMISSIONS, 1962

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by
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The opinions expressed in this report
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TABLE OF CONTENTS

		Page
INTRODUCTION		1
1.	COMPOSITION OF COHORT	2
1.1	Age, sex and diagnosis	2
1.2	Diagnostic group and age-group	3
1.3	Age-group and sex	3
2.	PATTERN OF HOSPITALIZATION	4
2.1	Number of periods of hospitalization	4
2.2	Number of first admissions discharged alive and number readmitted	5
2.3	Number of times readmitted by diagnostic group	6
2.4	Whether readmitted to hospital of first admission or to some other hospital	6
3.	FIRST HOSPITALIZATION	8
3.1	Number of discharges and deaths and remaining in hospital in successive time intervals by sex and age	10
3.2	Percentages of the starting cohort who were discharged, died or remained in hospital in successive time intervals, by age and sex	11
3.3	Schizophrenic disorders	13
3.3.1	People leaving and remaining in hospital in successive time intervals, by age and sex	15
3.3.2	Length of first period of hospitalization by interval between first discharge and second admission	16
3.3.3	Length of first period of hospitalization by length of second period of hospitalization	17
3.4	Manic-depressive reaction and involutional melancholia	19
3.4.1	People leaving and remaining in hospital in successive time intervals	21
3.4.2	Length of first period of hospitalization by interval between first discharge and second admission	22
3.4.3	Length of first period of hospitalization by length of second period of hospitalization	23
3.5	Senile and presenile psychosis and psychosis with cerebral arteriosclerosis	25
3.5.1	People leaving and remaining in hospital in successive time intervals	26
3.5.2	Deaths and discharges of patients 65 years and over in successive time intervals	27

TABLE OF CONTENTS - continued

		Page
3.6	Alcoholic psychosis and alcoholism	29
3.6.1	People leaving and remaining in hospital in successive time intervals	31
3.6.2	Length of first period of hospitalization by interval between first discharge and second admission	32
3.6.3	Length of first period of hospitalization by length of second period of hospitalization	33
3.7	Psychoneuroses	34
3.7.1	People leaving and remaining in hospital in successive time intervals	36
3.7.2	Length of first period of hospitalization by interval between first discharge and second admission	37
3.7.3	Length of first period of hospitalization by length of second period of hospitalization	38
3.8	Mental deficiency	40
3.8.1	People leaving and remaining in hospital in successive time intervals	41
4.	OUTCOME OF FIRST DISCHARGE	43
4.1	Sex and diagnostic group	43
4.2	Outcome by sex	43
4.3	Marital status and diagnostic groups	44
4.4	Diagnostic group and age-group	45
4.5	Availability of outpatient facilities	46
4.6	Length of first period of hospitalization	48
5.	AGGREGATE STAY	50
5.1	Aggregate stay by diagnostic group	50
ACKNOWLEDGEMENTS	... ...	51

LIST OF FIGURES

Page

1. Length of first period of hospitalization by diagnosis - Percentages of patients discharged or dying in successive time intervals 9

2. All cases: First hospitalization - Percentages of patients discharged or dying in successive time intervals 12

3. Schizophrenic disorders: First hospitalization - Percentages of patients discharged or dying in successive time intervals ... 18

4. Manic-depressive reaction and involutional melancholia: First hospitalization - Percentages of patients discharged or dying in successive time intervals 24

5. Senile and presenile psychosis and psychosis with cerebral arteriosclerosis - patients 65 years and over: First hospitalization - Percentages of patients discharged or dying in successive time intervals 28

6. Alcoholic psychosis and alcoholism - all ages: First hospitalization - Percentages of patients discharged or dying in successive time intervals 28

7. Psychoneuroses: First hospitalization - Percentages of patients discharged or dying in successive time intervals 39

8. Mental deficiency: First hospitalization - Percentages of patients discharged or dying in successive time intervals 42

INTRODUCTION

The current mental health statistics collection scheme in New Zealand provides essential administrative and clinical data about the people who are admitted to and discharged from mental hospitals. Although information is produced about first admissions, readmissions, discharges and deaths, it is not possible to obtain supplementary data about the number of times individual patients are readmitted, nor about how long people remain out of hospital between admissions. This study was undertaken to provide this and related information.

The first 4,000 first admissions which occurred in 1962 were selected for inclusion in the cohort. A case-history was prepared for each person in the cohort on which were subsequently recorded details about discharges, death and readmissions which occurred during the two years following the date of admission.

The 4,000 cohort cases represent 92.3 per cent of all inpatient first admissions to mental hospitals in 1962. The cases were reported from all psychiatric and psychopaedic hospitals in New Zealand but not from psychiatric inpatient units of general hospitals.

The age-groups 0 to 14, 15 to 34, 35 to 64, and 65 and over were chosen because these were also used in the cohort study made by Eileen Brooke of patients first admitted to mental hospitals in 1954 and 1955 in England and Wales. Although comparison between the English and Welsh and the New Zealand data has not been made in this report, it was felt that the selection of the same age-groups would facilitate comparisons by those desiring to make them.

1. COMPOSITION OF COHORT

The numbers of cases by age, sex and diagnosis are shown in Table 1.1. The ages have been shown in ten-year groups so that a comparison with all patients admitted for the first time in 1962, published in the Annual Statistical Report for that year, can be made if required.

In Table 1.2 the number of cases in each of the four selected age-groups is shown and in Table 1.3 the sex by selected age-groups is shown.

TABLE 1.1 : COMPOSITION OF COHORT BY AGE, SEX AND DIAGNOSIS

I.C.D. Nos.	Diagnosis	Sex	Total	Age-groups								
				0-	10-	20-	30-	40-	50-	60-	70-	80-
025	General paralysis of insane	M	3	.	.	.	1	1	1	.	.	.
300	Schizophrenic disorders	M	281	.	30	100	82	36	21	9	2	1
		F	293	1	34	82	79	54	28	10	5	.
301	Manic-depressive reaction	M	196	.	4	17	34	45	49	33	12	2
		F	263	.	2	28	65	57	50	40	20	1
302	Involutional melancholia	M	24	.	.	.	.	.	12	10	2	.
		F	24	.	.	.	.	6	14	2	1	1
303	Paranoia and paranoid states	M	16	.	.	2	4	4	2	3	1	.
		F	11	.	1	1	3	2	2	2	.	.
304	Senile psychosis	M	227	.	.	.	.	.	.	14	90	123
		F	350	.	.	.	.	.	.	33	149	168
305	Presenile psychosis	M	10	.	.	.	.	.	5	5	.	.
		F	13	.	.	.	.	1	5	7	.	.
306	Psychosis with cerebral arteriosclerosis	M	47	.	.	.	.	1	.	20	19	7
		F	34	.	.	.	.	1	1	13	15	4
307	Alcoholic psychosis	M	35	.	.	1	5	12	9	5	3	.
		F	15	.	.	1	.	4	5	4	1	.
308	Psychosis of other demonstrable etiology	M	33	1	2	7	7	5	4	7	.	.
		F	21	.	2	1	3	5	5	3	1	1
688.1	Puerperal psychosis	F	42	.	2	22	15	3	.	.	.	.
309	Other and unspecified psychoses	M	25	.	1	3	3	4	5	1	6	2
		F	11	.	.	.	1	3	1	4	1	1
310	Anxiety reaction	M	82	.	1	16	18	31	10	5	1	.
		F	128	.	3	24	35	39	17	7	2	1
311	Hysterical reaction	M	26	.	9	10	1	3	2	1	.	.
		F	49	.	6	14	15	9	3	1	1	.
314	Neurotic-depressive reaction	M	234	.	2	35	56	67	47	18	8	1
		F	390	.	21	83	113	86	54	22	9	2
-	Other psychoneurotic disorders	M	35	.	4	8	5	6	6	4	2	.
		F	64	.	4	16	18	9	8	8	1	.
320	Pathological personality	M	85	.	19	29	17	14	6	.	.	.
		F	23	.	9	9	3	1	1	.	.	.
321	Immature personality	M	55	.	29	21	3	1	1	.	.	.
		F	65	.	37	17	5	3	3	.	.	.
322	Alcoholism	M	248	.	.	12	72	91	52	19	1	1
		F	58	.	.	2	9	18	19	7	2	1
325	Mental deficiency	M	222	100	74	19	14	6	8	1	.	.
		F	132	69	31	10	8	8	2	3	1	.
-	All other diagnoses	M	87	4	30	16	10	14	8	3	2	.
		F	43	4	20	5	4	6	2	1	1	.
-	All diagnoses	M	1,971	105	205	296	332	341	248	158	149	137
		F	2,029	74	172	315	376	315	220	167	210	180

TABLE 1.2 : COMPOSITION OF COHORT BY DIAGNOSTIC GROUP AND AGE-GROUP

I.C.D. Nos.	Diagnostic groups	Total	Age-groups			
			0-14	15-34	35-64	65 and over
300	Schizophrenic disorders	574	11	313	236	14
301-2	Manic-depressive reaction and involutional melancholia	507	.	86	346	75
304-6	Senile, presenile and cerebral arterio-sclerotic psychosis	681	.	.	50	631
307 & 322	Alcoholism - all forms	356	.	41	294	21
310-318	Psychoneurosis	1,008	4	370	583	51
325	Mental deficiency	354	219	95	37	3
-	All other diagnoses	520	32	296	167	25
	Totals	4,000	266	1,201	1,713	820

TABLE 1.3 : COMPOSITION OF COHORT BY AGE-GROUP AND SEX

	Sex	Total	Age-groups			
			0-14	15-34	35-64	65 and over
Males		1,971	159	580	885	347
Females		2,029	107	621	828	473
	Totals	4,000	266	1,201	1,713	820

2. PATTERN OF HOSPITALIZATION

The number of times people entered or left hospital is shown in Table 2.1. Of the starting cohort of 4,000, 487 or 12.2 per cent died during their first admission, 520 or 13.0 per cent remained in hospital at the end of two years, and 2,993 or 74.8 per cent were discharged. In round figures then, we may say that one eighth of the first admissions died, one eighth remained in hospital and three-quarters were discharged.

A quarter of these discharges (771 or 25.8 per cent) were subsequently readmitted, some of them several times. Details were: one person had eight readmissions, one had seven readmissions, three had six readmissions, five had five readmissions, 22 had four readmissions, 63 had three readmissions, 151 had two readmissions and 525 people had one readmission.

TABLE 2.1 : PATTERN OF HOSPITALIZATION: NUMBER OF PERIODS OF HOSPITALIZATION

Period of hospitalization		Number	Percentage
	Number of patients in cohort	4,000	
First	Died	487	12.2
	Still in hospital at end of 2yr. period	520	13.0
	Discharged	2,993	74.8
	- not readmitted	2,222	55.6
	- readmitted	771	19.3
Second	Died	19	0.5
	Still in hospital at end of 2yr. period	26	0.7
	Discharged	726	18.2
	- not readmitted	480	12.0
	- readmitted	246	6.2
Third	Died	3	0.1
	Still in hospital at end of 2yr. period	9	0.2
	Discharged	234	5.9
	- not readmitted	139	3.5
	- readmitted	95	2.4
Fourth	Died	1	*
	Still in hospital at end of 2yr. period	7	0.2
	Discharged	87	2.2
	- not readmitted	55	1.4
	- readmitted	32	0.8
Fifth	Still in hospital at end of 2yr. period	4	0.1
	Discharged	28	0.7
	- not readmitted	18	0.5
	- readmitted	10	0.3
Sixth	Still in hospital at end of 2yr. period	1	*
	Discharged	9	0.2
	- not readmitted	4	0.1
	- readmitted	5	0.1
Seventh	Still in hospital at end of 2yr. period	1	*
	Discharged	4	0.1
	- not readmitted	2	0.1
	- readmitted	2	0.1
Eighth	Discharged	2	0.1
	- not readmitted	1	*
	- readmitted	1	*
Ninth	Discharged	1	*
	- not readmitted	1	*

* Less than 0.05 per cent

Table 2.2 shows by diagnostic groups, the number of first admissions discharged alive and the number readmitted during the course of the study.

TABLE 2.2 : PATTERN OF HOSPITALIZATION

NUMBER OF FIRST ADMISSIONS DISCHARGED ALIVE AND NUMBER READMITTED

I.C.D. Nos.	Diagnostic group	Discharged alive	Readmitted	Number readmitted per 100 discharged alive
300	Schizophrenic disorders	508	155	30.5
301-2	Manic-depressive reaction and involutional melancholia	479	126	26.3
304-6	Senile, presenile and cerebral arterio-sclerotic psychosis	148	32	21.6
307 & 322	Alcoholism, all forms	334	112	33.5
310-318	Psychoneurosis	988	215	21.8
325	Mental deficiency	102	17	16.7
-	All other diagnoses	434	114	26.3
	Totals	2,993	771	25.8

Of the 2,993 people discharged alive, 771 or 25.8 per cent were readmitted. Higher than average readmission rates were shown for all forms of alcoholism (33.5 per cent) and for schizophrenic disorders (30.5 per cent), while for psychoneurosis (21.8 per cent), senile, presenile and cerebral arteriosclerotic psychosis (21.6 per cent) and mental deficiency (16.7 per cent) the readmission rates were lower than average. These differences were of high statistical significance.

Table 2.3 shows the number of readmissions which occurred during the period reviewed. Although among those who were readmitted most (68.1 per cent) were readmitted only once, three or four readmissions were not uncommon. One alcoholic was admitted eight times in two years and one psychoneurotic was admitted nine times.

TABLE 2.3 : PATTERN OF HOSPITALIZATION

NUMBER OF TIMES READMITTED BY DIAGNOSTIC GROUP

I.C.D. Nos.	Diagnostic group		Total	Number of readmissions							
				1	2	3	4	5	6	7	8
300	Schizophrenic disorders	Nos.	155	99	40	11	5	.	.	.	.
		%	100	63.9	25.8	7.1	3.2	.	.	.	.
301-302	Manic-depressive reaction and involutional melancholia	Nos.	126	87	24	13	2	.	.	.	.
		%	100	69.0	19.0	10.3	1.6	.	.	.	.
304-306	Senile, presenile, and cerebral arteriosclerotic psychosis	Nos.	32	26	6	.	.	.	.	.	.
		%	100	81.2	18.8	.	.	.	.	.	.
307 & 322	Alcoholism, all forms	Nos.	112	65	24	11	7	3	1	1	.
		%	100	58.0	21.4	9.8	6.2	2.7	0.9	0.9	.
310-318	Psychoneurosis	Nos.	215	147	42	19	4	1	1	.	1
		%	100	68.4	19.5	8.8	1.9	0.5	0.5	.	0.5
325	Mental deficiency	Nos.	17	13	2	1	.	1	.	.	.
		%	100	76.5	11.8	5.9	.	5.9	.	.	.
-	All other diagnoses	Nos.	114	88	13	8	4	.	1	.	.
		%	100	77.2	11.4	7.0	3.5	.	0.9	.	.
	Totals	Nos.	771	525	151	63	22	5	3	1	1
		%	100	68.1	19.6	8.2	2.9	0.6	0.4	0.1	0.1

TABLE 2.4 : PATTERN OF HOSPITALIZATION

WHETHER READMITTED TO HOSPITAL OF FIRST ADMISSION OR TO SOME OTHER HOSPITAL

I.C.D. Nos.	Diagnostic group	Readmitted to hospital to which first admitted		Readmitted to another hospital	
		Numbers	%	Numbers	%
300	Schizophrenic disorders	118	76.1	37	23.9
301 302	Manic-depressive and involutional melancholia	105	83.3	21	16.7
304-306	Senile, presenile, and cerebral arteriosclerotic psychosis	29	90.6	3	9.4
307 & 322	Alcoholism, all forms	56	50.0	56	50.0
310-318	Psychoneurosis	148	68.8	67	31.2
325	Mental deficiency	13	76.5	4	23.5
-	All other diagnoses	89	78.1	25	21.9
	Totals	558	72.4	213	27.6

The information in Table 2.4 shows that readmission to another hospital is more likely for some diagnostic groups than it is for others. It should be remembered, however, that if a person was repeatedly readmitted, his chances of entering another hospital also increased. For this reason Table 2.4 should be studied in conjunction with Table 2.3.

Two diagnostic groups in which repeated readmissions were most common were alcoholism and psychoneurosis. Fifty per cent of the cases of alcoholism who were readmitted at some time during the two year period were readmitted to another hospital but for psychoneurosis the proportion at 31.2 per cent was closer to the overall average of 27.6 per cent.

3. FIRST HOSPITALIZATION

Figure 1 summarizes the considerable differences in length of first hospitalization for the principal diagnostic groups. The differences are discussed in detail in the following pages.

Tables 3.1 and 3.2 show the numbers and percentages of discharges, deaths and patients remaining in hospital by sex and age-groups for the first period of hospitalization. This information is also shown in Figure 2.

In the 0-14 age-group, a large proportion of the first admissions (63.2 per cent) remained in hospital at the end of two years. A further 9.8 per cent died during this time. In neither case was there any significant difference between the sexes. Half the deaths occurred within the first four weeks in hospital.

In the 15-34 age-group, 88.6 per cent of the males and 94.0 per cent of the females were discharged during the two years. Indeed, two-thirds of the males and nearly three-quarters of the females had been discharged by the end of three months. There were only three deaths in the 1201 people in this age-group. At the end of the two years 11.0 per cent of the males and 5.8 per cent of the females were still in hospital.

There was no significant difference in discharge rates, deaths or the number remaining in hospital between the sexes in the 35-64 age-group. Three-quarters of the cases were discharged within three months.

Just over half the patients aged 65 years and over died during their initial period of hospitalization and a third were discharged.

FIGURE 1 : LENGTH OF FIRST PERIOD OF HOSPITALIZATION BY DIAGNOSIS
PERCENTAGES OF PATIENTS DISCHARGED OR DYING IN SUCCESSIVE TIME INTERVALS

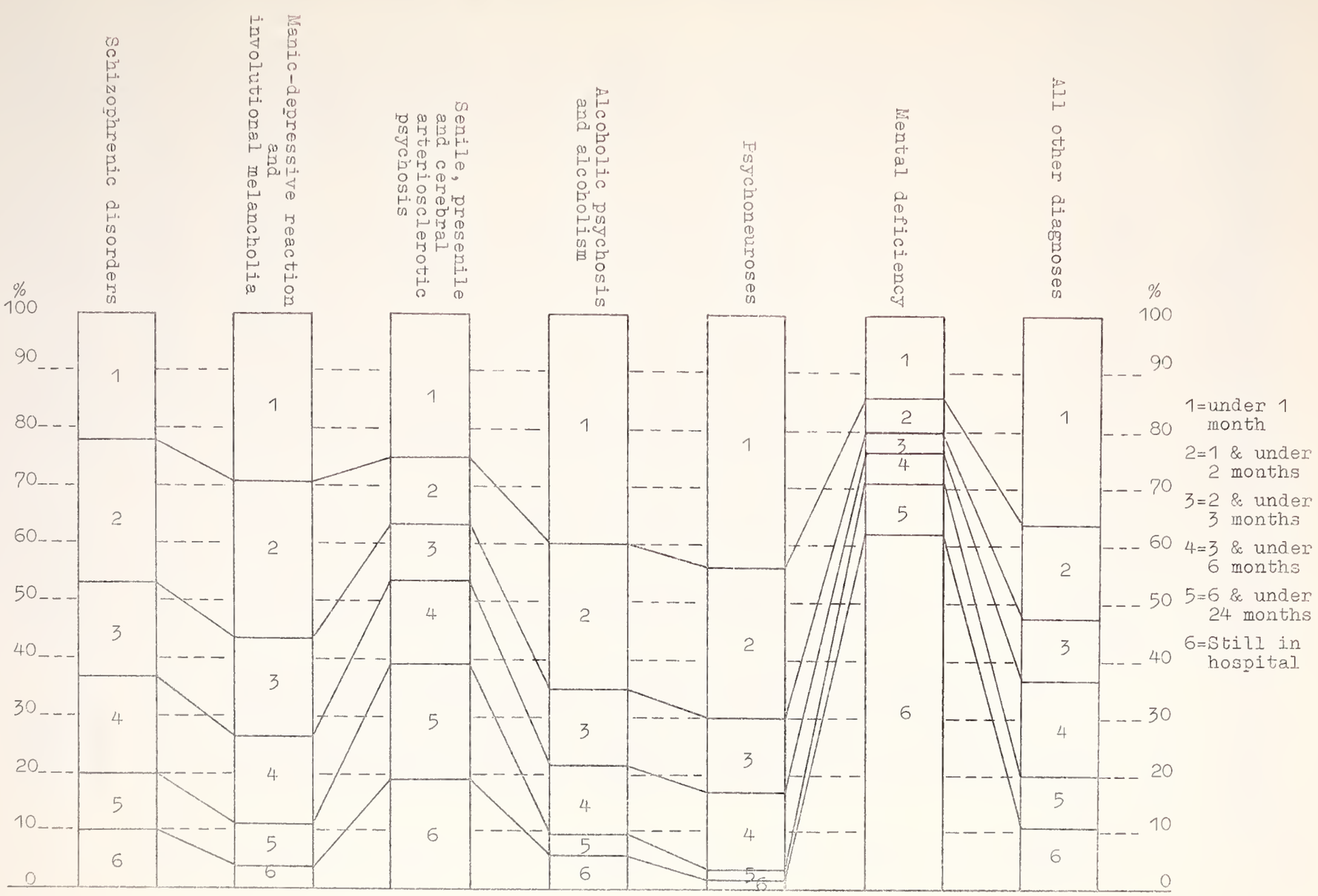


TABLE 3.1 : FIRST HOSPITALIZATION - NUMBERS OF DISCHARGES, DEATHS AND REMAINING IN HOSPITAL IN SUCCESSIVE TIME INTERVALS, BY SEX AND AGE

Time interval		Age-group							
		0-14		15-34		35-64		65 and over	
		Males	Females	Males	Females	Males	Females	Males	Females
Starting cohort		159	107	580	621	885	828	347	473
Under 1 week -	Discharges	1	1	33	40	60	39	3	4
	Deaths	2	1	.	.	5	.	13	2
	Remaining	156	105	547	581	820	789	331	467
1 week -	Discharges	6	2	40	54	75	64	15	12
	Deaths	1	1	.	.	2	1	22	13
	Remaining	149	102	507	527	743	724	294	442
2 weeks -	Discharges	7	2	45	40	88	65	7	10
	Deaths	3	.	.	.	3	3	23	9
	Remaining	139	100	462	487	652	656	264	423
3 weeks -	Discharges	3	2	77	81	115	97	15	21
	Deaths	2	3	.	.	.	1	23	14
	Remaining	134	95	385	406	537	558	226	388
4 weeks -	Discharges	11	4	106	137	196	238	30	32
	Deaths	.	1	.	.	1	5	26	24
	Remaining	123	90	279	269	340	315	170	332
2 months -	Discharges	2	5	83	95	115	111	9	24
	Deaths	.	.	1	.	4	.	17	29
	Remaining	121	85	195	174	221	204	144	279
3 months -	Discharges	6	1	42	58	65	62	16	18
	Deaths	1	1	.	.	2	1	12	17
	Remaining	114	83	153	116	154	141	116	244
4 months -	Discharges	2	1	28	19	22	41	6	13
	Deaths	1	1	.	1	3	1	8	18
	Remaining	111	81	125	96	129	99	102	213
5 months -	Discharges	.	3	18	16	15	14	1	6
	Deaths	2	.	.	.	.	.	7	22
	Remaining	109	78	107	80	114	85	94	185
6 months -	Discharges	3	.	26	29	21	9	5	14
	Deaths	2	2	1	.	3	2	18	35
	Remaining	104	76	80	51	90	74	71	136
9 months -	Discharges	3	2	11	9	11	13	6	2
	Deaths	.	.	.	.	3	1	15	22
	Remaining	101	74	69	42	76	60	50	112
12 months -	Discharges	1	2	3	2	7	3	.	1
	Deaths	1	1	.	.	.	1	1	5
	Remaining	99	71	66	40	69	56	49	106
18 months -	Discharges	2	.	2	4	3	3	1	.
	Deaths	.	.	.	.	.	1	4	16
After 2 years	Remaining	97	71	64	36	66	52	44	90
	Total discharges	47	25	514	584	793	759	114	157
	Total deaths	15	11	2	1	26	17	189	226

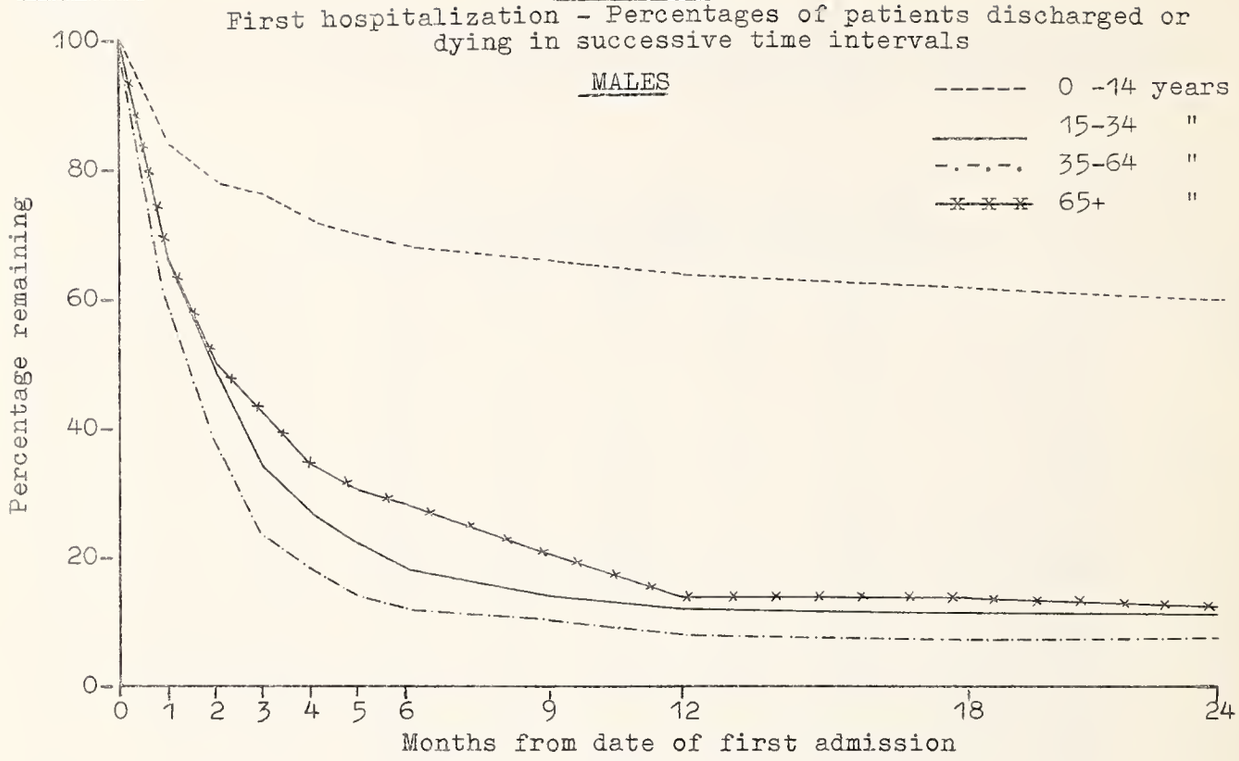
TABLE 3.2 : FIRST HOSPITALIZATION - PERCENTAGES OF THE STARTING COHORTS WHO WERE DISCHARGED, DIED OR REMAINING IN HOSPITAL IN SUCCESSIVE TIME INTERVALS, BY SEX AND AGE

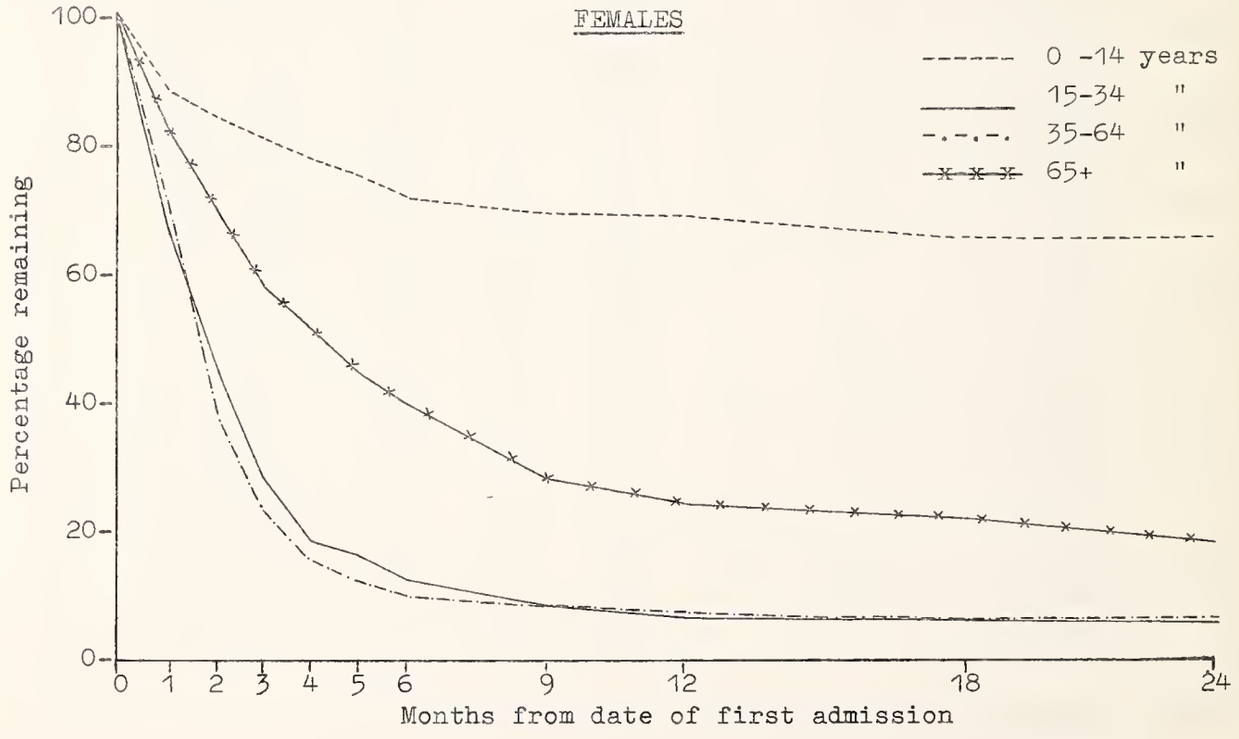
Time interval		Age-group							
		0-14		15-34		35-64		65 and over	
		Males	Females	Males	Females	Males	Females	Males	Females
Starting cohort		100	100	100	100	100	100	100	100
Under 1 week -	Discharges	0.6	0.9	5.7	6.4	6.8	4.7	0.9	0.8
	Deaths	1.3	0.9	.	.	0.6	.	3.7	0.4
	Remaining	98.1	98.1	94.3	93.6	92.7	95.3	95.4	98.7
1 week -	Discharges	3.8	1.9	6.9	8.7	8.5	7.7	4.3	2.5
	Deaths	0.6	0.9	.	.	0.2	0.1	6.3	2.7
	Remaining	93.7	95.3	87.4	84.9	84.0	87.4	84.7	93.4
2 weeks -	Discharges	4.4	1.9	7.8	6.4	9.9	7.9	2.0	2.1
	Deaths	1.9	.	.	.	0.3	0.4	6.6	1.9
	Remaining	87.4	93.5	79.7	78.4	73.7	79.2	76.1	89.4
3 weeks -	Discharges	1.9	1.9	13.3	13.0	13.0	11.7	4.3	4.4
	Deaths	1.3	2.8	.	.	.	0.1	6.6	3.0
	Remaining	84.3	88.8	66.4	65.4	60.7	67.4	65.1	82.0
4 weeks -	Discharges	6.9	3.7	18.3	22.1	22.1	28.7	8.6	6.8
	Deaths	.	0.9	.	.	0.1	0.6	7.5	5.1
	Remaining	77.4	84.1	48.1	43.3	38.4	38.0	49.0	70.2
2 months -	Discharges	1.3	4.7	14.3	15.3	13.0	13.4	2.6	5.1
	Deaths	.	.	0.2	.	0.5	.	4.9	6.1
	Remaining	76.1	79.4	33.6	28.0	25.0	24.6	41.5	59.0
3 months -	Discharges	3.8	0.9	7.2	9.3	7.3	7.5	4.6	3.8
	Deaths	0.6	0.9	.	.	0.2	0.1	3.5	3.6
	Remaining	71.7	77.6	26.4	18.7	17.4	17.0	33.4	51.6
4 months -	Discharges	1.3	0.9	4.8	3.1	2.5	5.0	1.7	2.7
	Deaths	0.6	0.9	.	0.2	0.3	0.1	2.3	3.8
	Remaining	69.8	75.7	21.6	15.5	14.6	12.0	29.4	45.0
5 months -	Discharges	.	2.8	3.1	2.6	1.7	1.7	0.3	1.3
	Deaths	1.3	.	.	.	.	.	2.0	4.7
	Remaining	68.6	72.9	18.4	12.9	12.9	10.3	27.1	39.1
6 months -	Discharges	1.9	.	4.5	4.7	2.4	1.1	1.4	3.0
	Deaths	1.3	1.9	0.2	.	0.3	0.2	5.2	7.4
	Remaining	65.4	71.0	13.8	8.2	10.2	8.9	20.5	28.8
9 months -	Discharges	1.9	1.9	1.9	1.4	1.2	1.6	1.7	0.4
	Deaths	.	.	.	.	0.3	0.1	4.3	4.7
	Remaining	63.5	69.2	11.9	6.8	8.6	7.2	14.4	23.7
12 months -	Discharges	0.6	1.9	0.5	0.3	0.8	0.4	.	0.2
	Deaths	0.6	0.9	.	.	.	0.1	0.3	1.1
	Remaining	62.3	66.4	11.4	6.4	7.8	6.8	14.1	22.4
18 months -	Discharges	1.3	.	0.3	0.6	0.3	0.4	0.3	.
	Deaths	.	.	.	.	.	0.1	1.2	3.4
After 2 years	Remaining	61.0	66.4	11.0	5.8	7.5	6.3	12.7	19.0
	Total discharges	29.6	23.4	88.6	94.0	89.6	91.7	32.9	33.2
	Total deaths	9.4	10.3	0.3	0.2	2.9	2.1	54.5	47.8

FIGURE 2

ALL CASES

First hospitalization - Percentages of patients discharged or dying in successive time intervals





3.3 - Schizophrenic disorders

Duration of first period of hospitalization

Over a fifth of the patients (22.0 per cent) left hospital during the first month, and during the second month a further 24.7 per cent left. In round figures, then, a little less than half the cases had left hospital before the end of the second month of hospitalization. Little more than 20 per cent of the starting cohort remained in hospital by the time the sixth month of hospitalization began, and of these half or 10.3 per cent remained in hospital at the expiry of two years.

There is some evidence that patients 15-34 years of age left hospital less quickly than those 35-64 years old. For instance, the percentages of people leaving hospital before the end of the second month of hospitalization were:-

	15-34 years	35-64 years
Males	40.0	48.1
Females	40.5	65.9

The difference is statistically significant for females but not for males.

As the length of stay increased the difference between the age-groups disappeared. For males there was little difference before the completion of the third month in hospital when 40.6 per cent of patients aged 15-34 years and 38.5 per cent of patients aged 35-64 years remained. For females, however, 37.9 per cent of those aged 35-64 years and 16.9 per cent of those aged 15-34 years left hospital during the second month, and it was not until eight months had elapsed that this difference disappeared. At this stage 11.5 per cent of female schizophrenics aged 15-34 years and 11.4 per cent of female schizophrenics aged 35-64 years remained in hospital.

This information is shown in detail in Table 3.3.1 and also in Figure 3.

Readmission

Of the 515 people whose first period of hospitalization ended during the two years reviewed, 508 were discharged alive. Seven out of every ten of these people (353 or 69.5 per cent) were not readmitted during the course of the study but 155 or 30.5 per cent were readmitted. Just over three-quarters of these (118 or 76.1 per cent) returned to the same hospital.

Characteristics of those readmitted and those not readmitted

Marital state

There was no difference in the proportion of single and ever married people who were readmitted. Of the 508 discharged, 75 or 30.7 per cent of the single patients were readmitted and 80 or 30.3 per cent of the ever married patients were readmitted.

Sex

Readmission was a little more common in males (32.1 per cent) than in females (29.1 per cent).

Age

There was little difference between the two main age-groups where 31.2 per cent of patients aged 15 to 34 years were readmitted and 30.3 per cent of patients aged 35-64 were readmitted.

Length of stay out of hospital

People who had been in hospital for a short time had a higher readmission rate than did patients in hospital for longer periods of time. The percentages of patients readmitted after being hospitalized for varying periods, together with the mean time between discharge and readmission, were :-

Length of first period of hospitalization	Percentage readmitted	Mean weeks between discharge and readmission
Under one month	38.7	18.8
One month and under two months	36.2	24.1
Two months and under three months	31.5	26.6
Three months and under six months	20.6	24.5
Six months and under twenty-four months	14.0	30.4

Although a longer time in hospital reduced the chances of readmission the gains from longer hospitalization were by no means spectacular. No doubt the degree of illness played an important part in determining how long patients remained in hospital, but on the face of it, there is little point in advocating longer stay as a means of reducing readmission rates.

There was, however, a direct relationship between the length of stay in hospital and the length of stay out of hospital before readmission, ranging from a mean of 18.8 weeks away from hospital for those who had been hospitalized for under a month to 30.4 weeks away from hospital for those hospitalized for more than six months.

Effect of outpatient facilities on readmission

The availability or otherwise of psychiatric outpatient facilities did not appear to have any influence on readmission. The proportion of readmissions from areas served by outpatient facilities was 30.6 per cent, while readmissions from areas not served by such services were 30.3 per cent.

Interval between first discharge and second admission

It was stated above that 155 people were admitted for a second time. The length of time these people were originally in hospital is shown in Table 3.3.2 by the length of time between the first discharge and second admission. Ten people were readmitted within a week and a further 22 before the first month had elapsed. Thus 32 or 20.6 per cent returned within the first month. Thirty people, however, were readmitted between three and six months after discharge and 41 were readmitted between six and twelve months after discharge.

Of those readmitted who had been in hospital for less than one month, 21 or 43.8 per cent returned within three months, while 29.4 per cent of those who had been in hospital between one and two months and 30.4 per cent of those who had been in hospital for more than two months returned within three months.

Of those readmitted who had been in hospital for less than one month, 31.3 per cent returned after six months or more, while 35.3 per cent of those who had been in hospital between one and two months and 46.4 per cent of those who had been in hospital more than two months returned after six months or more.

It appears then that people with schizophrenic disorders who had been in hospital for a short time not only had a higher readmission rate than patients in hospital for longer periods of time, but also were readmitted more rapidly.

Length of second period of hospitalization

The length of the second period of hospitalization by the length of the first period of hospitalization is shown in Table 3.3.3. Although slightly more second than first admissions were discharged within a month, the overall picture was one of second admission being for longer periods than first admission.

TABLE 3.3.1 : FIRST HOSPITALIZATION - PEOPLE LEAVING AND REMAINING IN HOSPITAL IN SUCCESSIVE TIME INTERVALS, BY SEX AND AGE-GROUPS

SCHIZOPHRENIC DISORDERS

Time interval in hospital	MALES				FEMALES				* BOTH SEXES	
	15-34		35-64		15-34		35-64		(all ages)	
	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%
Starting cohort	165	100	104	100	148	100	132	100	574	100
Under 1 month -										
Leaving	29	17.6	22	21.2	35	23.6	37	28.0	126	22.0
Remaining	136	82.4	82	78.8	113	76.4	95	72.0	448	78.0
1 month -										
Leaving	37	22.4	28	26.9	25	16.9	50	37.9	142	24.7
Remaining	99	60.0	54	51.9	88	59.5	45	34.1	306	53.3
2 months -										
Leaving	32	19.4	14	13.5	32	21.6	10	7.6	91	15.9
Remaining	67	40.6	40	38.5	56	37.8	35	26.5	215	37.5
3 months -										
Leaving	15	9.1	6	5.8	19	12.8	14	10.6	55	9.6
Remaining	52	31.5	34	32.7	37	25.0	21	15.9	160	27.9
4 months -										
Leaving	8	4.8	6	5.8	5	3.4	2	1.5	23	4.0
Remaining	44	26.7	28	26.9	32	21.6	19	14.4	137	23.9
5 months -										
Leaving	7	4.2	4	3.8	5	3.4	1	0.8	20	3.5
Remaining	37	22.4	24	23.1	27	18.2	18	13.6	117	20.4
6 months -										
Leaving	11	6.7	6	5.8	10	6.8	3	2.3	31	5.4
Remaining	26	15.8	18	17.3	17	11.5	15	11.4	86	15.0
9 months -										
Leaving	6	3.6	4	3.8	3	2.0	3	2.3	18	3.1
Remaining	20	12.1	14	13.5	14	9.5	12	9.1	68	11.8
12 months -										
Leaving	1	0.6	1	1.0	1	0.7	2	1.5	5	0.9
Remaining	19	11.5	13	12.5	13	8.8	10	7.6	63	11.0
18 months -										
Leaving	1	0.6	1	1.0	1	0.7	1	0.8	4	0.7
Remaining at 2 years	18	10.9	12	11.5	12	8.1	9	6.8	59	10.3

* Eleven people under the age of 15 years and 14 people aged 65 years and over who were hospitalized because of schizophrenic disorders have not been tabulated separately by age-groups but have been included in the "both sexes" totals.

TABLE 3.3.2 : LENGTH OF FIRST PERIOD OF HOSPITALIZATION BY INTERVAL BETWEEN FIRST DISCHARGE AND SECOND ADMISSION

SCHIZOPHRENIC DISORDERS

Length of first period of hospitalization	Interval between first discharge and second admission									
	Total	Under 1 week	1 week & under 2 weeks	2 weeks & under 1 month	1 month & under 2 months	2 months & under 3 months	3 months & under 6 months	6 months & under 12 months	12 months & under 18 months	18 months & under 24 months
Under 1 month	48	8	6	2	5	6	6	11	2	2
1 month & under 2 months	51	1	5	3	6	7	11	12	6	.
2 months & under 3 months	28	1	1	2	.	7	4	9	4	.
3 months & under 4 months	16	.	1	1	1	1	4	7	1	.
4 months & under 5 months	1	.	.	.	.	.	1	.	.	.
5 months & under 6 months	3	.	.	.	1	.	.	1	1	.
6 months & under 9 months	2	.	.	.	.	.	2	.	.	.
9 months & under 12 months	6	.	.	1	.	.	2	1	2	.
Totals	155	10	13	9	13	21	30	41	16	2

TABLE 3.3.3 : LENGTH OF FIRST PERIOD OF HOSPITALIZATION BY LENGTH OF SECOND PERIOD OF HOSPITALIZATION

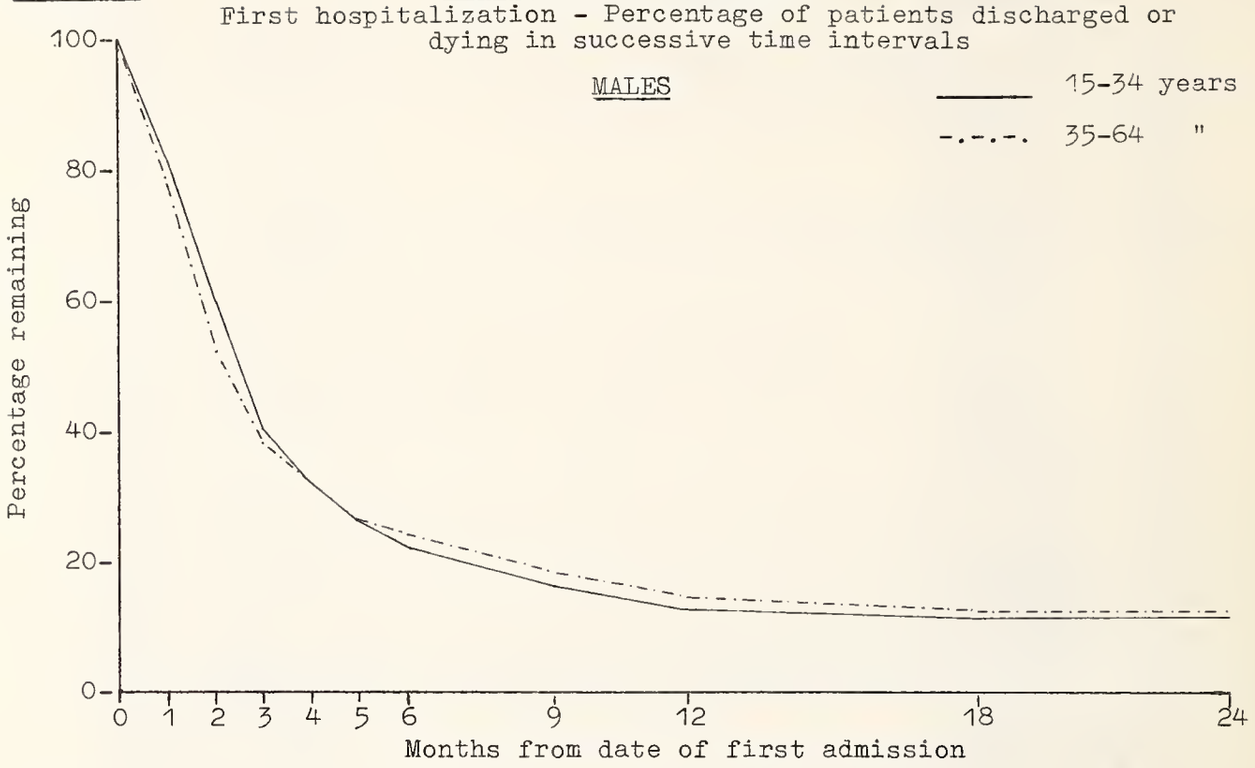
SCHIZOPHRENIC DISORDERS

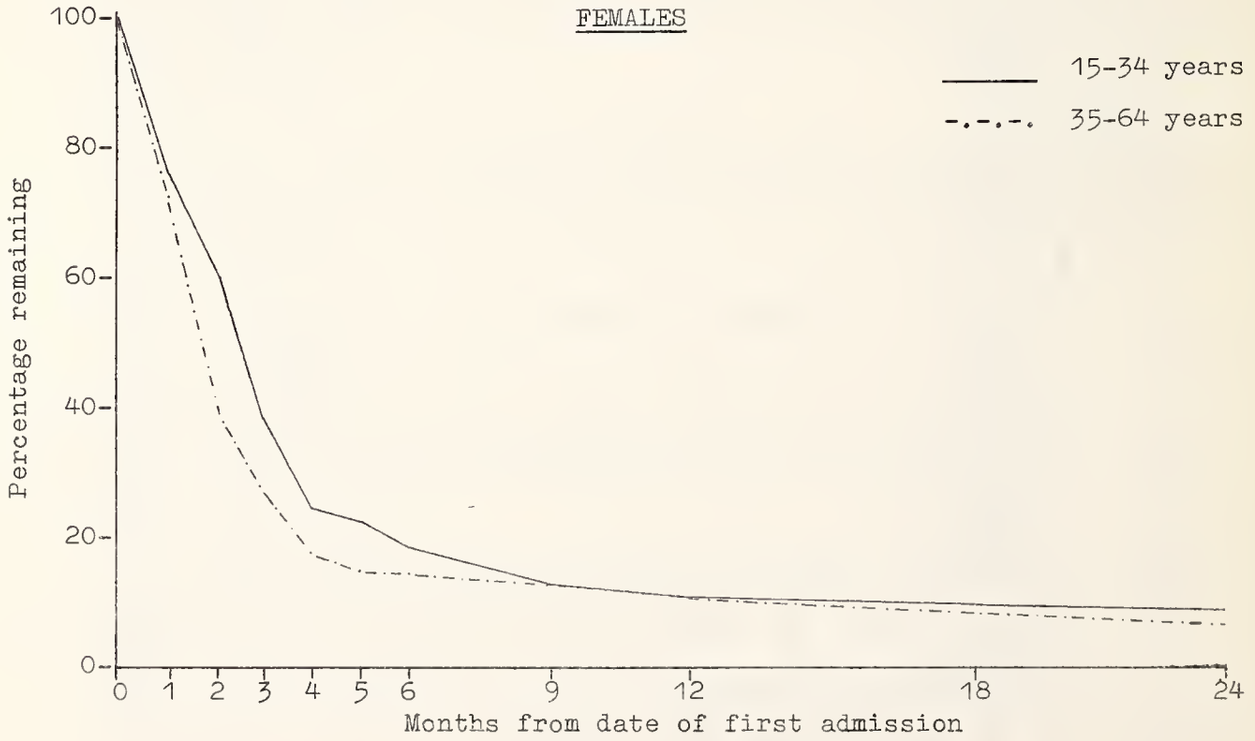
Length of first period of hospitalization	Length of second period of hospitalization											
	Total	Under 1 month	1 month & under 2 months	2 months & under 3 months	3 months & under 4 months	4 months & under 5 months	5 months & under 6 months	6 months & under 9 months	9 months & under 12 months	12 months & under 18 months	18 months & under 24 months	Still in hospital
Under 1 month	48	18	13	2	7	2	.	2	.	1	3	.
1 month & under 2 months	51	16	13	6	8	2	1	3	1	.	1	.
2 months & under 3 months	28	14	5	4	.	2	2	.	1	.	.	.
3 months & under 4 months	16	5	1	4	2	.	.	1	2	1	.	.
4 months & under 5 months	1	.	.	.	.	1	.	.	.	.	.	.
5 months & under 6 months	3	.	1	.	1	.	.	1	.	.	.	.
6 months & under 9 months	2	.	.	1	.	.	.	.	.	.	.	1
9 months & under 12 months	6	.	3	.	1	.	1	1	.	.	.	.
Totals	155	53	36	17	19	7	4	8	4	2	4	1

FIGURE 3

SCHIZOPHRENIC DISORDERS

First hospitalization - Percentage of patients discharged or dying in successive time intervals





3.4 : Manic-depressive reaction and involutional melancholia

Duration of first period of hospitalization

Of the 507 people in this diagnostic group, 459 were reported as manic-depressive reaction and 48 as involutional melancholia.

Nearly three-quarters of the cases left hospital within the first three months. Of every 100 cases, 29 left during the first month, 28 during the second month and 17 during the third month. A further 16 left during the next three months, while at the end of two years only four remained in hospital.

There was some evidence that in the 35-64 age-group a greater proportion of males than females was discharged in under one month. Generally speaking, however, there was little difference in the release patterns for the two sexes. There was a difference in the release patterns of old and young patients irrespective of sex. For patients aged under 65 years, 58.5 per cent left hospital by the end of the second month. For patients aged 65 years and over the percentage was significantly lower at 45.3 per cent. A quicker rate of leaving for the younger patients was maintained throughout the period studied. Full details are shown in Table 3.4.1 and in Figure 4.

Readmission

A total of 489 patients left hospital during the course of the study, of whom 479 or 98.0 per cent were discharged alive. Just over a quarter (126 or 25.8 per cent) were subsequently readmitted, of whom 105 or 83.3 per cent returned to the same hospital.

Characteristics of those readmitted and those not readmitted

Age

Readmission was somewhat more frequent in older patients. The percentages of readmissions were 24.7 per cent for patients aged 15-34 years, 26.3 per cent for patients aged 35-64 years and 28.6 per cent for patients aged 65 years and over.

Sex

There was no difference in readmission rates for males and females.

Marital status

Readmission was a little less common in single patients (23.3 per cent) than in patients who were ever married (27.0 per cent).

Length of stay out of hospital

The percentage of people readmitted to hospital and the mean time in weeks between discharge and readmission are shown below. It is likely that the smaller mean stay for patients who had been hospitalized for six months or more is not significant. There were only eight such cases, and as readmission after eighteen months was not altogether uncommon in this diagnostic group, the low mean value was probably the result of closing off the survey two years after the date of original admission.

Length of first period of hospitalization	Percentage readmitted	Mean weeks between discharge and readmission
Under 1 month	27.8	20.3
1 month and under 2 months	25.7	27.2
2 months and under 3 months	20.9	33.4
3 months and under 6 months	30.4	31.0
6 months and under 24 months	26.7	22.7

The readmission rate was lowest for the people who had been in hospital for two and under three months (20.9 per cent). This group also had the largest average stay out of hospital, 33.4 weeks.

Effect of outpatient facilities on readmission

Readmission was more common in areas served by outpatient facilities (27.5 per cent) than from areas without such facilities (22.3 per cent), but this difference had no statistical significance.

Interval between first discharge and second admission

The length of time the 126 people admitted for a second time were originally in hospital is shown in Table 3.4.2 in terms of the length of time between the first discharge and the second admission. Over half (55.0 per cent) of those readmissions who had been in hospital for less than one month, returned to hospital within three months.

Length of second period of hospitalization

Table 3.4.3 shows that the distribution of cases was similar to that for first admissions with 39 or 31.0 per cent being discharged within one month, 31 or 24.6 per cent being discharged after a stay of one and under two months, and 19 or 15.1 per cent being discharged after a stay of two and under three months.

TABLE 3.4.1 : FIRST HOSPITALIZATION - PEOPLE LEAVING AND REMAINING IN HOSPITAL IN SUCCESSIVE TIME INTERVALS:

MANIC-DEPRESSIVE REACTION AND INVOLUTIONAL MELANCHOLIA

Time interval in hospital	MALES						FEMALES						BOTH SEXES
	15-34		35-64		65 & over		15-34		35-64		65 & over		(all ages)
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
Starting cohort	33	100	157	100	30	100	53	100	189	100	45	100	507
Under 1 month -													
Leaving	13	39.4	56	35.7	8	26.7	11	20.8	50	26.5	8	17.8	146
Remaining	20	60.6	101	64.3	22	73.3	42	79.2	139	73.5	37	82.2	361
1 month -													
Leaving	6	18.2	41	26.1	7	23.3	22	41.5	54	28.6	11	24.4	141
Remaining	14	42.4	60	38.2	15	50.0	20	37.7	85	45.0	26	57.8	220
2 months -													
Leaving	6	18.2	24	15.3	3	10.0	8	15.1	39	20.6	8	17.8	88
Remaining	8	24.2	36	22.9	12	40.0	12	22.6	46	24.3	18	40.0	132
3 months -													
Leaving	1	3.0	11	7.0	4	13.3	4	7.5	14	7.4	10	22.2	44
Remaining	7	21.2	25	15.9	8	26.7	8	15.1	32	16.9	8	17.8	88
4 months -													
Leaving	5	15.2	3	1.9	2	6.7	1	1.9	14	7.4	3	6.7	28
Remaining	2	6.1	22	14.0	6	20.0	7	13.2	18	9.5	5	11.1	60
5 months -													
Leaving	1	3.0	3	1.9	.	.	1	1.9	3	1.6	1	2.2	9
Remaining	1	3.0	19	12.1	6	20.0	6	11.3	15	7.9	4	8.9	51
6 months -													
Leaving	.	.	8	5.1	1	3.3	3	5.7	3	1.6	2	4.4	17
Remaining	1	3.0	11	7.0	5	16.7	3	5.7	12	6.3	2	4.4	34
9 months -													
Leaving	.	.	2	1.3	1	3.3	3	5.7	6	3.2	.	.	12
Remaining	1	3.0	9	5.7	4	13.3	.	.	6	3.2	2	4.4	22
1 year -													
Leaving	.	.	2	1.3	.	.	.	.	.	.	.	.	2
Remaining	1	3.0	7	4.5	4	13.3	.	.	6	3.2	2	4.4	20
18 months -													
Leaving	.	.	.	.	1	3.3	.	.	1	0.5	.	.	2
Remaining at 2 years	1	3.0	7	4.5	3	10.0	.	.	5	2.6	2	4.4	18

TABLE 3.4.2 : LENGTH OF FIRST PERIOD OF HOSPITALIZATION BY INTERVAL BETWEEN FIRST DISCHARGE AND SECOND ADMISSION

MANIC-DEPRESSIVE REACTION AND INVOLUTIONAL MELANCHOLIA

Length of first period of hospitalization	Interval between first discharge and second admission									
	Total	Under 1 week	1 week & under 2 weeks	2 weeks & under 1 month	1 month & under 2 months	2 months & under 3 months	3 months & under 6 months	6 months & under 12 months	12 months & under 18 months	18 months & under 24 months
Under 1 month	40	5	6	5	4	2	7	7	1	3
1 month and under 2 months	36	2	4	5	1	2	5	12	4	1
2 months & under 3 months	18	.	.	2	2	.	5	5	2	2
3 months & under 4 months	17	.	.	2	2	3	5	2	1	2
4 months & under 5 months	5	.	.	1	.	.	.	1	3	.
5 months & under 6 months	2	1	.	.	1	.	.	.	.	.
6 months & under 9 months	4	.	.	1	.	1	.	2	.	.
9 months & under 12 months	3	.	1	.	1	.	1	.	.	.
12 months & under 18 months	1	.	.	.	.	.	.	1	.	.
Totals	126	8	11	16	11	8	23	30	11	8

TABLE 3.4.3 : LENGTH OF FIRST PERIOD OF HOSPITALIZATION BY LENGTH OF SECOND PERIOD OF HOSPITALIZATION

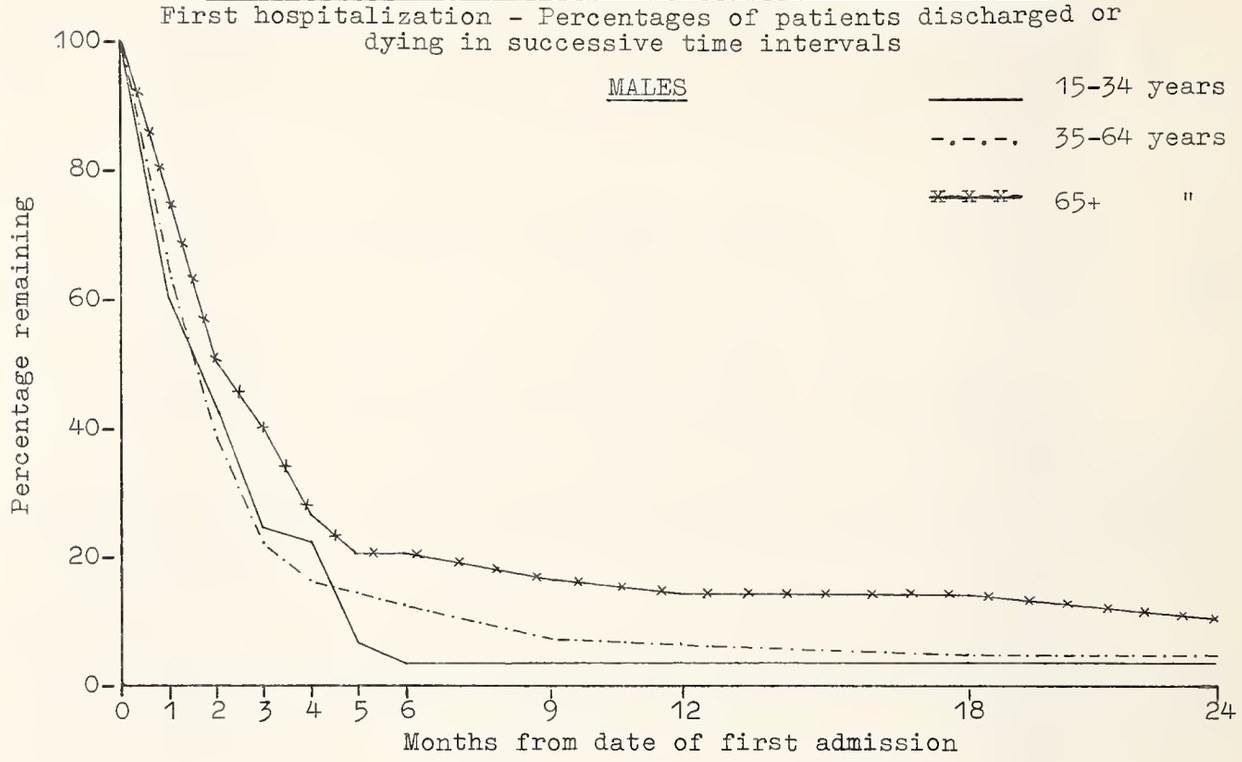
MANIC-DEPRESSIVE REACTION AND INVOLUTIONAL MELANCHOLIA

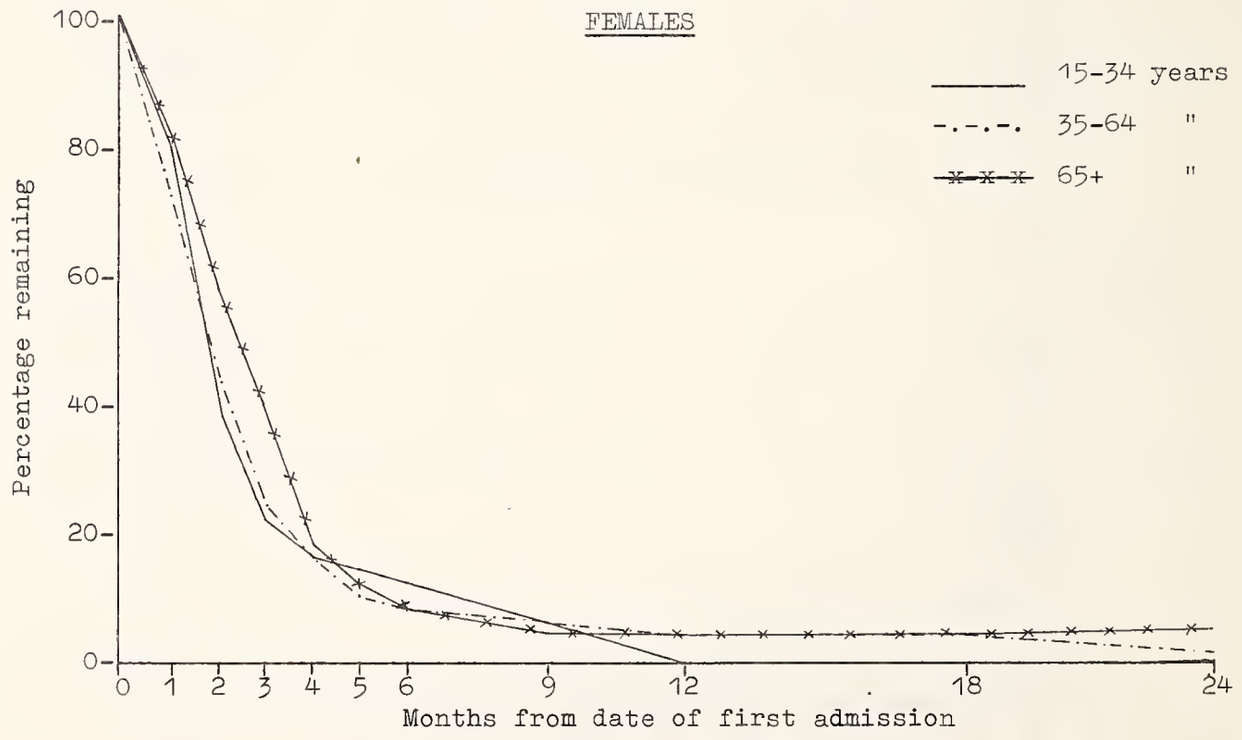
Length of first period of hospitalization	Length of second period of hospitalization											
	Total	Under 1 month	1 month & under 2 months	2 months & under 3 months	3 months & under 4 months	4 months & under 5 months	5 months & under 6 months	6 months & under 9 months	9 months & under 12 months	12 months & under 18 months	18 months & under 24 months	Still in hospital
Under 1 month	40	20	10	4	2	.	.	3	1	.	.	.
1 month & under 2 months	36	10	14	6	4	1	1	.	.	.	.	.
2 months & under 3 months	18	4	1	5	2	4	.	.	.	.	1	1
3 months & under 4 months	17	3	3	1	3	2	3	1	1	.	.	.
4 months & under 5 months	5	1	2	1	.	.	.	1	.	.	.	.
5 months & under 6 months	2	.	.	1	1	.	.	.	.	.	.	.
6 months & under 9 months	4	.	1	.	1	1	.	1	.	.	.	.
9 months & under 12 months	3	1	.	.	.	.	1	1	.	.	.	.
12 months & under 18 months	1	.	.	1	.	.	.	.	.	.	.	.
Totals	126	39	31	19	13	8	5	7	2	.	1	1

FIGURE 4

MANIC-DEPRESSIVE REACTION AND INVOLUTIONAL MELANCHOLIA

First hospitalization - Percentages of patients discharged or dying in successive time intervals





3.5 : Senile and pre-senile psychosis and psychosis with cerebral arteriosclerosis

Duration of first period of hospitalization

Data for people of all ages in this diagnostic group are shown in Table 3.5.1 and data for people aged 65 years and over who were assigned to this heading are shown in Table 3.5.2 and Figure 5. There were 681 people in this diagnostic group of whom 577 or 84.7 per cent were reported as senile psychosis, 23 as pre-senile psychosis and 81 as psychosis with cerebral arteriosclerosis. All but 50 were aged 65 years and over.

The two most noteworthy features of Table 3.5.2 are the highly significant number of males dying within the first month and the significantly high proportion of females still remaining in hospital at the end of two years. Of the 260 males in the starting cohort, 77 or 29.6 per cent died within one month. For females the proportion dying in this time was only 9.2 per cent. Secondly, at the end of two years 21.6 per cent of the females were still in hospital whereas the proportion of males was 13.5 per cent.

A possible explanation of the high male death rate during the first month in hospital, is that as husbands are usually a few years older than their wives, and as the expectation of life for men is also less than for women, men can more frequently be nursed at home during the early stages of their illnesses than can women. When men in this diagnostic category are finally admitted to psychiatric hospital a higher proportion may well have an illness that has advanced to the point where terminal conditions are becoming manifest. Women, on the other hand, may tend to be admitted to hospital at an earlier stage of deterioration because of the unavailability of alternative nursing care in their homes.

The hospitalization pattern for people in this diagnostic group aged 65 years and over was that three-quarters of the cohort were still in hospital at the beginning of the second month, half the cohort were still in hospital at the beginning of the fourth month, and at the end of one year 22.5 per cent remained. There was very little change in the following twelve months, at the end of which 18.2 per cent of the cohort was still hospitalized. Of those who were not still in hospital at the end of two years, 76.2 per cent had died.

Readmission

Only a quarter of the 553 people whose first hospitalization ended during the two years of the study were discharged alive, and of these only 32 were readmitted.

TABLE 3.5.1 : FIRST HOSPITALIZATION - PEOPLE LEAVING AND REMAINING IN HOSPITAL IN SUCCESSIVE TIME INTERVALS

SENILE AND PRESENILE PSYCHOSIS, AND PSYCHOSIS WITH CEREBRAL ARTERIOSCLEROSIS

Time interval in hospital		MALES				FEMALES			
		35-64		65 and over		35-64		65 and over	
		No.	%	No.	%	No.	%	No.	%
Starting cohort		24	100	260	100	26	100	371	100
Under 1 month -	Leaving	7	29.2	95	36.5	7	26.9	62	16.7
	Remaining	17	70.8	165	63.5	19	73.1	309	83.3
1 month -	Leaving	4	16.7	32	12.3	3	11.5	35	9.4
	Remaining	13	54.2	133	51.2	16	61.5	274	73.9
2 months -	Leaving	4	16.7	19	7.3	3	11.5	39	10.5
	Remaining	9	37.5	114	43.8	13	50.0	235	63.3
3 months -	Leaving	1	4.2	21	8.1	1	3.8	17	4.6
	Remaining	8	33.3	93	35.8	12	46.2	218	58.8
4 months -	Leaving	1	4.2	9	3.5	1	3.8	24	6.5
	Remaining	7	29.2	84	32.3	11	42.3	194	52.3
5 months -	Leaving	.	.	6	2.3	.	.	25	6.7
	Remaining	7	29.2	78	30.0	11	42.3	169	45.6
6 months -	Leaving	2	8.3	20	7.7	.	.	45	12.1
	Remaining	5	20.8	58	22.3	11	42.3	124	33.4
9 months -	Leaving	1	4.2	18	6.9	2	7.7	22	5.9
	Remaining	4	16.7	40	15.4	9	34.6	102	27.5
1 year -	Leaving	.	.	1	0.4	.	.	6	1.6
	Remaining	4	16.7	39	15.0	9	34.6	96	25.9
18 months -	Leaving	.	.	4	1.5	.	.	16	4.3
	Remaining at 2 years	4	16.7	35	13.5	9	34.6	80	21.6

TABLE 3.5.2 : FIRST HOSPITALIZATION - DEATHS AND DISCHARGES OF PATIENTS 65 YEARS OF AGE AND OVER IN SUCCESSIVE TIME INTERVALS

SENILE AND PRESENILE PSYCHOSIS AND PSYCHOSIS WITH CEREBRAL ARTERIOSCLEROSIS

Time interval in hospital		MALES		FEMALES		TOTAL	
		Nos.	%	Nos.	%	Nos.	%
Under 1 month	Died	77	29.6	34	9.2	111	17.6
	Discharged	18	6.9	28	7.5	46	7.3
	Remaining	165	63.5	309	83.3	474	75.1
1 month	Died	25	9.6	23	6.2	48	7.6
	Discharged	7	2.7	12	3.2	19	3.0
	Remaining	133	51.2	274	73.9	407	64.5
2 months	Died	16	6.2	26	7.0	42	6.7
	Discharged	3	1.2	13	3.5	16	2.5
	Remaining	114	43.8	235	63.3	349	55.3
3 months	Died	12	4.6	15	4.0	27	4.3
	Discharged	9	3.5	2	0.5	11	1.7
	Remaining	93	35.8	218	58.8	311	49.3
4 months	Died	7	2.7	18	4.9	25	4.0
	Discharged	2	0.8	6	1.6	8	1.3
	Remaining	84	32.3	194	52.3	278	44.1
5 months	Died	6	2.3	22	5.9	28	4.4
	Discharged	.	.	3	0.8	3	0.5
	Remaining	78	30.0	169	45.6	247	39.1
6 months	Died	17	6.5	35	9.4	52	8.2
	Discharged	3	1.2	10	2.7	13	2.1
	Remaining	58	22.3	124	33.4	182	28.8
9 months	Died	15	5.8	20	5.4	35	5.5
	Discharged	3	1.2	2	0.5	5	0.8
	Remaining	40	15.4	102	27.5	142	22.5
1 year	Died	1	0.4	5	1.3	6	1.0
	Discharged	.	.	1	0.3	1	0.2
	Remaining	39	15.0	96	25.9	135	21.4
18 months	Died	3	1.2	16	4.3	19	3.0
	Discharged	1	0.4	.	.	1	0.2
	Remaining after 2 years	35	13.5	80	21.6	115	18.2
Total deaths		179	68.8	214	57.7	393	62.3
Total discharges		46	17.7	77	20.8	123	19.5
Total deaths and discharges		260	100.0	371	100.0	631	100.0

FIGURE 5

SENILE AND PRESENILE PSYCHOSIS AND PSYCHOSIS WITH CEREBRAL ARTERIOSCLEROSIS
PATIENTS 65 YEARS AND OVER: First hospitalization - Percentages of patients discharged or dying in successive time intervals

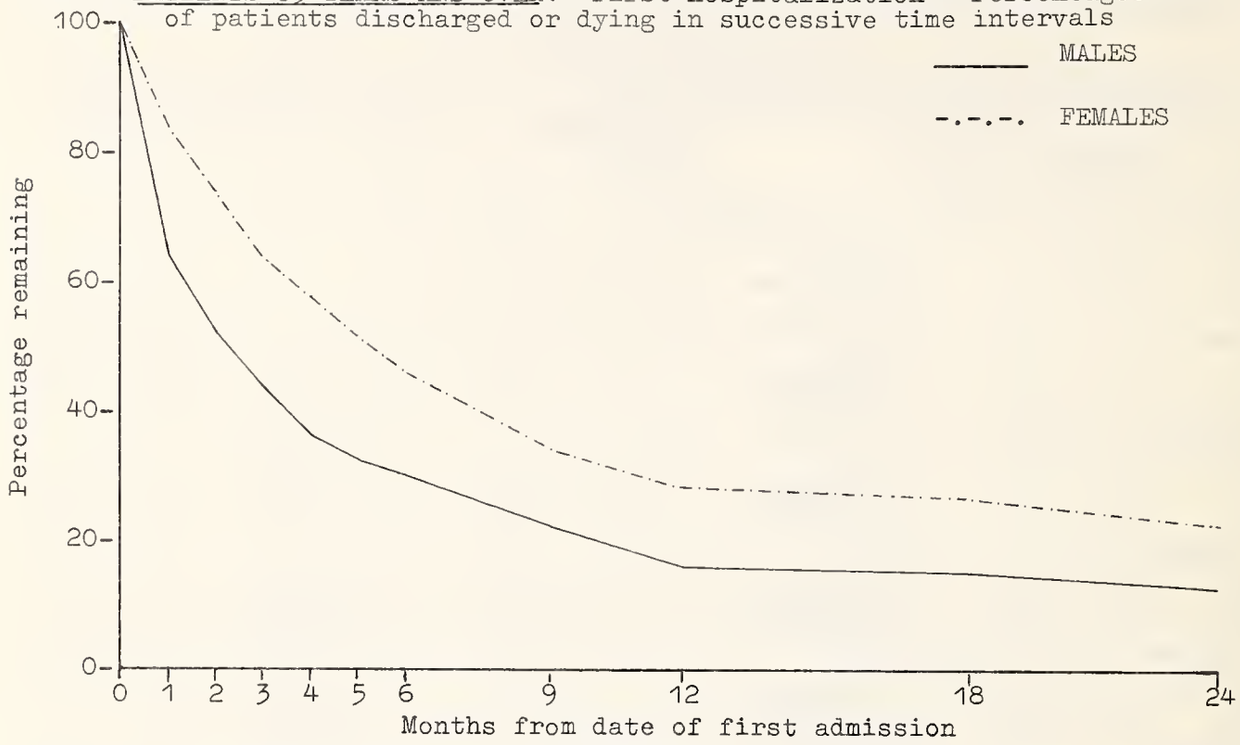
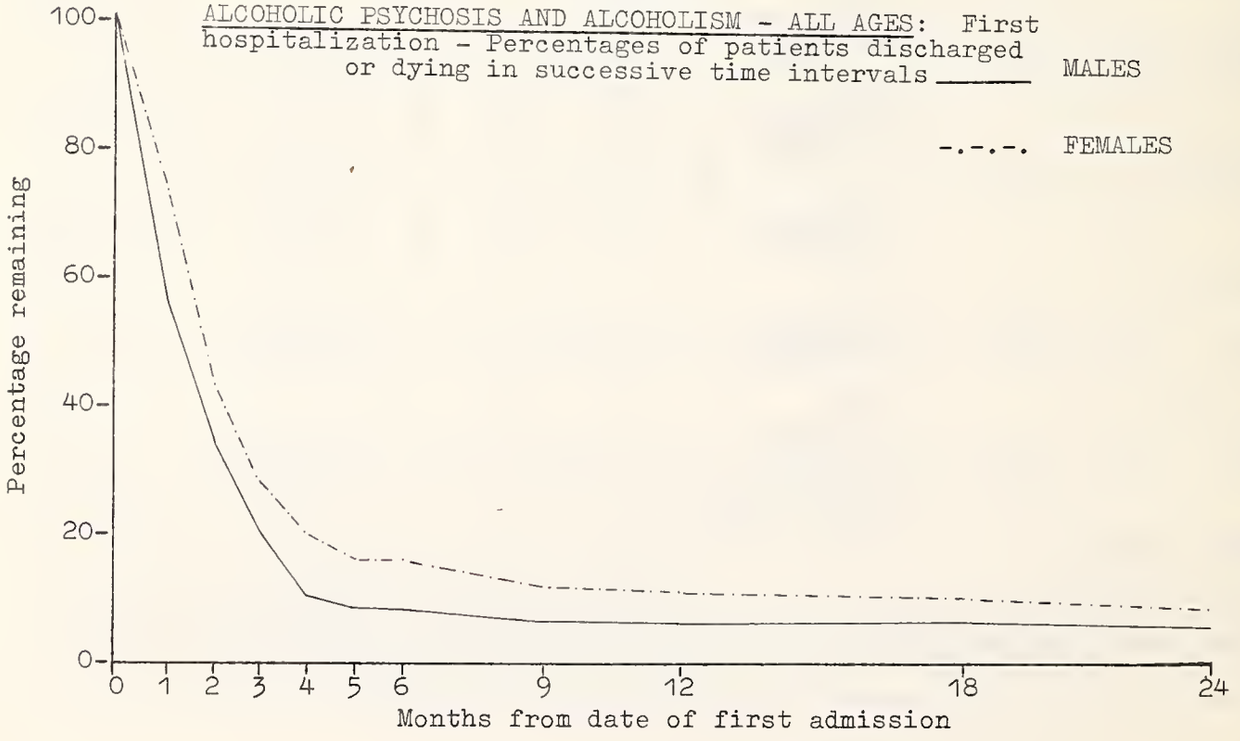


FIGURE 6

ALCOHOLIC PSYCHOSIS AND ALCOHOLISM - ALL AGES: First hospitalization - Percentages of patients discharged or dying in successive time intervals



3.6 : Alcoholic psychosis and alcoholism

Duration of first period of hospitalization

The majority of the people in this diagnostic group, 306 or 86.0 per cent, were cases of non-psychotic alcoholism.

In round figures 40 per cent of the cases left hospital during the first month and a further 25 per cent left during the second month. In other words, only about one third of the cases remained in hospital for longer than two months. At the end of the fourth month of hospitalization, less than 10 per cent of the cases remained from which only small decrements occurred during the following time intervals. Six per cent of the cohort remained in hospital at the end of two years.

During the first month of hospitalization when the greatest number of discharges occurred the male discharge rate was greater than that for females. Full details are shown in Table 3.6.1, and differences in duration of stay for males and females are shown in Figure 6 .

Readmission

Of the 334 patients who left hospital alive during the period reviewed, one third (33.5 per cent) were readmitted. Exactly half of these were re-admitted to a different hospital.

Characteristics of those readmitted and those not readmitted

Age

Younger people had a higher readmission rate than older people. For those aged 15-34 years, 39.0 per cent were readmitted, while for those aged 35-64, 34.5 per cent were readmitted.

Sex

Although women (41.8 per cent) were more frequently readmitted than men (31.5 per cent) this difference was not statistically significant.

Marital status

Readmission was more common in people who had been married but who on admission were separated, divorced or widowed (38.7 per cent) or were single (37.1 per cent) than those who were married (29.0 per cent). These differences were only of slight statistical significance however.

Length of stay out of hospital

The figures below show that readmission was more frequent in people who had been in hospital for only a short time and that people in hospital for one and under two months had the longest mean stay out of hospital, 30.4 weeks.

Length of first period of hospitalization	Percentage readmitted	Mean weeks between discharge and readmission
Under one month	38.7	22.5
One month and under two months	35.6	30.4
Two months and under three months	30.6	17.5
Three months and under six months	28.3	25.1

Interval between first discharge and second admission

Nearly half the people who were readmitted had originally been in hospital for less than one month (see Table 3.6.2) but on the occasion of their second admission a longer stay was generally the rule. Although 16 of these again remained in hospital for less than a month, ten stayed on the second occasion for between three and six months, 13 stayed for between six and twelve months and eight for more than a year.

Length of second period of hospitalization

A little under half the alcoholics admitted for the second time had been in hospital for under a month (Table 3.6.3). The same number left hospital within a month of their second admission. There was perhaps some support for the view that a proportion of alcoholics make use of mental hospitals for recuperation between drinking bouts, in that 32 patients were discharged within one month of both their first and second admissions.

TABLE 3.6.1 : FIRST HOSPITALIZATION - PEOPLE LEAVING AND REMAINING IN HOSPITAL IN SUCCESSIVE TIME INTERVALS

ALCOHOLIC PSYCHOSIS AND ALCOHOLISM

Time interval in hospital	MALES						FEMALES						BOTH SEXES	
	15-34		35-64		65 & over		15-34		35-64		65 & over		(all ages)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Starting cohort	35	100	234	100	14	100	6	100	60	100	7	100	356	100
Under 1 month -														
Leaving	17	48.6	99	42.3	7	50.0	2	33.3	16	26.7	1	14.3	142	39.9
Remaining	18	51.4	135	57.7	7	50.0	4	66.7	44	73.3	6	85.7	214	60.1
1 month -														
Leaving	8	22.9	55	23.5	3	21.4	2	33.3	20	33.3	.	.	88	24.7
Remaining	10	28.6	80	34.2	4	28.6	2	33.3	24	40.0	6	85.7	126	35.4
2 months -														
Leaving	5	14.3	30	12.8	1	7.1	1	16.7	8	13.3	2	28.6	47	13.2
Remaining	5	14.3	50	21.4	3	21.4	1	16.7	16	26.7	4	57.1	79	22.2
3 months -														
Leaving	3	8.6	25	10.7	1	7.1	1	16.7	4	6.7	1	14.3	35	9.8
Remaining	2	5.7	25	10.7	2	14.3	.	.	12	20.0	3	42.9	44	12.4
4 months -														
Leaving	.	.	6	2.6	.	.	.	.	4	6.7	.	.	10	2.8
Remaining	2	5.7	19	8.1	2	14.3	.	.	8	13.3	3	42.9	34	9.6
5 months -														
Leaving	1	2.9	.	.	.	.	.	.	.	.	.	.	1	0.3
Remaining	1	2.9	19	8.1	2	14.3	.	.	8	13.3	3	42.9	33	9.3
6 months -														
Leaving	1	2.9	2	0.9	.	.	.	.	1	1.7	1	14.3	5	1.4
Remaining	.	.	17	7.3	2	14.3	.	.	7	11.7	2	28.6	28	7.9
9 months -														
Leaving	.	.	1	0.4	1	7.1	.	.	1	1.7	.	.	3	0.8
Remaining	.	.	16	6.8	1	7.1	.	.	6	10.0	2	28.6	25	7.0
1 year -														
Leaving	.	.	1	0.4	.	.	.	.	1	1.7	.	.	2	0.6
Remaining	.	.	15	6.4	1	7.1	.	.	5	8.3	2	28.6	23	6.5
18 months -														
Leaving	.	.	1	0.4	.	.	.	.	1	1.7	.	.	2	0.6
Remaining at 2 years	.	.	14	6.0	1	7.1	.	.	4	6.7	2	28.6	21	5.9

TABLE 3.6.2 : LENGTH OF FIRST PERIOD OF HOSPITALIZATION BY INTERVAL BETWEEN FIRST DISCHARGE AND SECOND ADMISSION

ALCOHOLISM, ALL FORMS

Length of first period of hospitalization	Interval between first discharge and second admission									
	Total	Under 1 week	1 week & under 2 weeks	2 weeks & under 1 month	1 month & under 2 months	2 months & under 3 months	3 months & under 6 months	6 months & under 12 months	12 months & under 18 months	18 months & under 24 months
Under 1 month	55	8	3	5	6	2	10	13	7	1
1 month and under 2 months	31	.	4	5	2	3	1	9	6	1
2 months and under 3 months	11	.	1	2	2	1	2	2	1	.
3 months and under 4 months	8	1	1	.	1	.	1	3	.	1
4 months and under 5 months	4	.	1	.	1	.	1	1	.	.
5 months and under 18 months	3	.	.	.	1	.	1	1	.	.
Totals	112	9	10	12	13	6	16	29	14	3

TABLE 3.6.3 : LENGTH OF FIRST PERIOD OF HOSPITALIZATION BY LENGTH OF SECOND PERIOD OF HOSPITALIZATION

ALCOHOLISM, ALL FORMS

Length of first period of hospitalization	Length of second period of hospitalization										
	Total	Under 1 month	1 month & under 2 months	2 months & under 3 months	3 months & under 4 months	4 months & under 5 months	5 months & under 6 months	6 months & under 9 months	9 months & under 12 months	12 months & under 18 months	18 months & under 24 months
Under 1 month	55	32	11	7	4	1	.	.	.	.	.
1 month & under 2 months	31	14	7	6	2	1	.	1	.	.	.
2 months & under 3 months	11	5	1	2	2	.	.	.	.	.	1
3 months & under 4 months	8	2	1	3	.	1	1	.	.	.	.
4 months & under 5 months	4	2	.	1	.	.	.	1	.	.	.
5 months & under 18 months	3	.	.	.	.	.	1	1	.	1	.
Totals	112	55	20	19	8	3	2	3	.	1	1

3.7 : Psychoneuroses

Duration of first period of hospitalization

The principal diagnoses included under this heading were neurotic-depressive reaction (61.9 per cent), anxiety reaction (20.8 per cent), and hysterical reaction (7.4 per cent).

The overall pattern of release was that 44.6 per cent of the cases left hospital during the first month and a further 25.6 per cent left during the second month, by which time only 30 per cent of the cases were still in hospital. By the end of the fourth month of hospitalization, 95 per cent of the starting cohort had left hospital. There were very small decrements from this point during the following twenty months, after which time 1.6 per cent of the starting cohort remained in hospital.

During the first month of hospitalization 49.1 per cent of males and 42.0 per cent of females left hospital, but this difference is not of high statistical significance. Full details are shown in Table 3.7.1 and Figure 7.

Readmission

All but four of the 992 patients whose first period of hospitalization ended during the two years reviewed were discharged alive. During the remainder of the period studied 215 or 21.8 per cent were readmitted, 148 or 68.8 per cent to the hospital from which they were discharged.

Age

People aged between 35 and 64 years had a higher readmission rate (24.4 per cent) than did younger people (18.8 per cent for those aged 15 to 34 years) or older people (14.9 per cent for those aged 65 years and over).

Sex

Males were readmitted more frequently (24.1 per cent) than females (20.4 per cent).

Marital status

Readmission was more common in single people (22.2 per cent) and in married people (22.5 per cent) than in people who had been married but on admission were separated, divorced or widowed and who had a somewhat lower readmission rate (17.3 per cent). This difference was not statistically significant, however.

Length of stay out of hospital

The percentage of people readmitted after being hospitalized for varying periods, together with mean time between discharge and readmission, are shown below. One person who was in hospital for more than six months was subsequently readmitted but this case has not been included below:-

Length of first period of hospitalization	Percentage readmitted	Mean weeks between discharge and readmission
Under one month	23.3	23.5
One month and under two months	20.2	18.1
Two months and under three months	25.0	17.7
Three months and under six months	18.4	19.7

There were no great differences between the length of first period of hospitalization and the chances of readmission. Those who had been in hospital for less than one month had the longest mean stay out of hospital (23.5 weeks).

Effect of outpatient facilities on readmission

There was no significant difference in readmission rates of those who lived in areas in which outpatient facilities were available (21.6 per cent) and those who lived in areas in which outpatient facilities were not available (22.5 per cent).

Interval between first discharge and second admission

Table 3.7.2 shows the time spent out of hospital by the 215 people who were readmitted. Thirty had been out of hospital for less than a week, but only half of these had initially been in hospital for less than a month, the other half having a stay of between one and under six months. If half the cases in which readmission occurred almost immediately had been originally in hospital for under a month, this was not typical of all such short stay cases, over a third of whom were readmitted after being away from hospital for over six months.

Length of second admission

People stayed in hospital longer during their second admission (see Table 3.7.3). Comparing the second with the first stay in hospital, fewer readmissions were discharged within the first month, about the same numbers were discharged after staying between one and under four months, but more were discharged after being in hospital five months or longer.

TABLE 3.7.1 : FIRST HOSPITALIZATION - PEOPLE LEAVING AND REMAINING IN HOSPITAL IN SUCCESSIVE TIME INTERVALS

PSYCHONEUROSES

Time interval in hospital		MALES						FEMALES						*BOTH SEXES	
		15-34		35-64		65 & over		15-34		35-64		65 & over		(all ages)	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Starting cohort		116	100	238	100	20	100	254	100	345	100	31	100	1008	100
Under 1 month	- Leaving	58	50.0	119	50.0	5	25.0	120	47.2	135	39.1	10	32.3	450	44.6
	Remaining	58	50.0	119	50.0	15	75.0	134	52.8	210	60.9	21	67.7	558	55.4
1 month	- Leaving	26	22.4	50	21.0	8	40.0	59	23.2	109	31.6	6	19.4	258	25.6
	Remaining	32	27.6	69	29.0	7	35.0	75	29.5	101	29.3	15	48.4	300	29.8
2 months	- Leaving	20	17.2	35	14.7	1	5.0	33	13.0	45	13.0	1	3.2	136	13.5
	Remaining	12	10.3	34	14.3	6	30.0	42	16.5	56	16.2	14	45.2	164	16.3
3 months	- Leaving	8	6.9	16	6.7	2	10.0	18	7.1	22	6.4	7	22.6	73	7.2
	Remaining	4	3.4	18	7.6	4	20.0	24	9.4	34	9.9	7	22.6	91	9.0
4 months	- Leaving	2	1.7	5	2.1	1	5.0	8	3.1	19	5.5	3	9.7	38	3.8
	Remaining	2	1.7	13	5.5	3	15.0	16	6.3	15	4.3	4	12.9	53	5.3
5 months	- Leaving	1	0.9	3	1.3	.	.	5	2.0	7	2.0	1	3.2	17	1.7
	Remaining	1	0.9	10	4.2	3	15.0	11	4.3	8	2.3	3	9.7	36	3.6
6 months	- Leaving	.	.	3	1.3	2	10.0	6	2.4	2	0.6	1	3.2	14	1.4
	Remaining	1	0.9	7	2.9	1	5.0	5	2.0	6	1.7	2	6.5	22	2.2
9 months	- Leaving	.	.	2	0.8	.	.	2	0.8	.	.	.	.	4	0.4
	Remaining	1	0.9	5	2.1	1	5.0	3	1.2	6	1.7	2	6.5	18	1.8
1 year	- Leaving	1	0.9	1	0.4	.	.	.	.	.	.	.	.	2	0.2
	Remaining	.	.	4	1.7	1	5.0	3	1.2	6	1.7	2	6.5	16	1.6
18 months	- Leaving	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Remaining at 2 years	.	.	4	1.7	1	5.0	3	1.2	6	1.7	2	6.5	16	1.6

* Four people under the age of 15 years have not been tabulated separately by age-group but have been included in the "both sexes" totals

TABLE 3.7.2 : LENGTH OF FIRST PERIOD OF HOSPITALIZATION BY INTERVAL BETWEEN FIRST DISCHARGE AND SECOND ADMISSION

PSYCHONEUROSES

Length of first period of hospitalization	Interval between first discharge and second admission									
	Total	Under 1 week	1 week & under 2 weeks	2 weeks & under 1 month	1 month & under 2 months	2 months & under 3 months	3 months & under 6 months	6 months & under 12 months	12 months & under 18 months	18 months & under 24 months
Under 1 month	105	15	5	10	22	4	12	21	11	5
1 month and under 2 months	52	5	6	6	10	4	7	9	4	1
2 months and under 3 months	34	7	2	5	1	5	6	6	1	1
3 months and under 4 months	13	1	.	2	2	1	3	2	.	2
4 months and under 5 months	6	1	1	.	1	1	.	2	.	.
5 months and under 6 months	4	1	.	1	.	1	.	1	.	.
6 months and under 9 months	1	.	.	.	.	.	.	1	.	.
Totals	215	30	14	24	36	16	28	42	16	9

TABLE 3.7.3 : LENGTH OF FIRST PERIOD OF HOSPITALIZATION BY LENGTH OF SECOND PERIOD OF HOSPITALIZATION

PSYCHONEUROSES

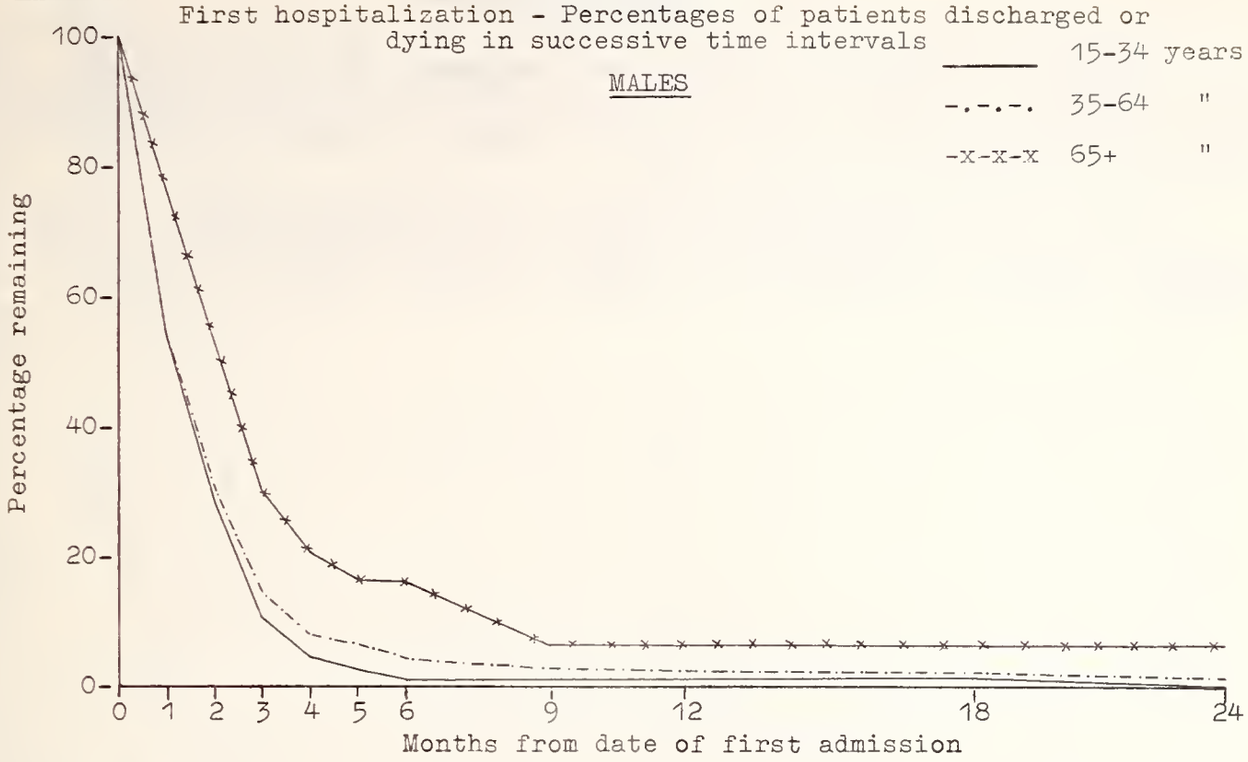
Length of first period of hospitalization	Length of second period of hospitalization									
	Total	Under 1 month	1 month & under 2 months	2 months & under 3 months	3 months & under 4 months	4 months & under 5 months	5 months & under 6 months	6 months & under 9 months	9 months & under 12 months	Still in hospital
Under 1 month	105	47	26	19	8	.	4	1	.	.
1 month & under 2 months	52	19	12	9	3	3	2	3	1	.
2 months & under 3 months	34	14	8	3	3	1	.	4	.	1
3 months & under 4 months	13	4	5	.	.	3	.	1	.	.
4 months & under 5 months	6	3	.	1	.	2	.	.	.	.
5 months & under 6 months	4	1	2	.	.	1	.	.	.	.
6 months & under 9 months	1	.	.	.	.	.	1	.	.	.
Totals	215	88	53	32	14	10	7	9	1	1

FIGURE 7

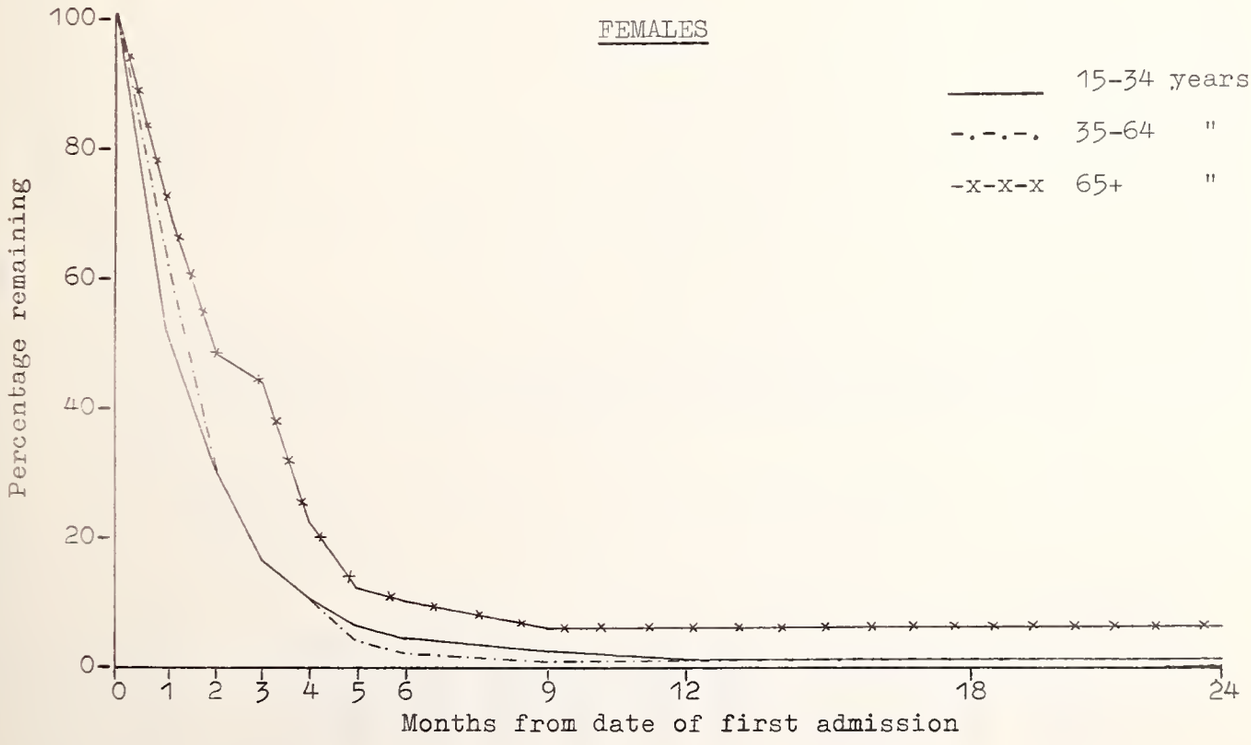
PSYCHONEUROSES

First hospitalization - Percentages of patients discharged or dying in successive time intervals

MALES



FEMALES



3.8 : Mental deficiency

The main feature of the cases in this diagnostic group was the large proportion (62.1 per cent) who remained in hospital throughout the entire two years for which the study lasted. A greater proportion of under 15-year-olds remained in hospital for two years (67.6 per cent) than was the case with patients 15-34 years old (47.4 per cent).

Over half the people leaving hospital did so within two months. About a quarter of these were short stay patients, a quarter were patients remanded from the Courts and a quarter died. Details are shown in Table 3.8.1 and Figure 8.

TABLE 3.8.1 : FIRST HOSPITALIZATION - PEOPLE LEAVING AND REMAINING IN HOSPITAL IN SUCCESSIVE TIME INTERVALS

MENTAL DEFICIENCY

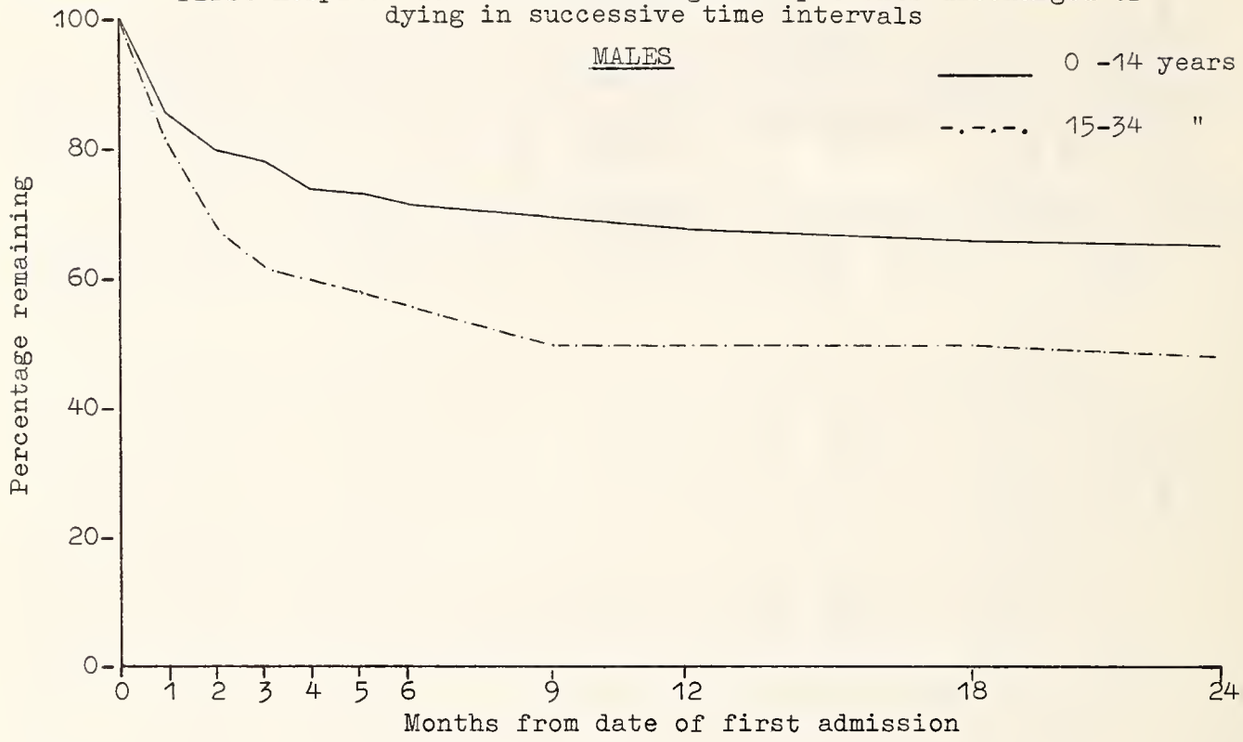
Time interval in hospital		MALES						FEMALES						BOTH SEXES*	
		0-14		15-34		35-64		0-14		15-34		35-64		(all ages)	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Starting cohort		134	100	67	100	20	100	85	100	28	100	17	100	354	100
Under 1 month -	Leaving	20	14.9	12	17.9	2	10.0	8	9.4	5	17.9	2	11.8	49	13.8
	Remaining	114	85.1	55	82.1	18	90.0	77	90.6	23	82.1	15	88.2	305	86.2
1 month -	Leaving	7	5.2	9	13.4	.	.	4	4.7	3	10.7	.	.	23	6.5
	Remaining	107	79.9	46	68.7	18	90.0	73	85.9	20	71.4	15	88.2	282	79.7
2 months -	Leaving	2	1.5	4	6.0	.	.	3	3.5	1	3.6	1	5.9	11	3.1
	Remaining	105	78.4	42	62.7	18	90.0	70	82.4	19	67.9	14	82.4	271	76.6
3 months -	Leaving	5	3.7	1	1.5	.	.	2	2.4	3	10.7	.	.	11	3.1
	Remaining	100	74.6	41	61.2	18	90.0	68	80.0	16	57.1	14	82.4	260	73.4
4 months -	Leaving	2	1.5	2	3.0	.	.	1	1.2	1	3.6	.	.	6	1.7
	Remaining	98	73.1	39	58.2	18	90.0	67	78.8	15	53.6	14	82.4	254	71.8
5 months -	Leaving	2	1.5	1	1.5	.	.	2	2.4	.	.	.	.	5	1.4
	Remaining	96	71.6	38	56.7	18	90.0	65	76.5	15	53.6	14	82.4	249	70.3
6 months -	Leaving	3	2.2	4	6.0	.	.	2	2.4	3	10.7	1	5.9	13	3.7
	Remaining	93	69.4	34	50.7	18	90.0	63	74.1	12	42.9	13	76.5	236	66.7
9 months -	Leaving	2	1.5	.	.	2	10.0	.	.	.	.	1	5.9	7	2.0
	Remaining	91	67.9	34	50.7	16	80.0	63	74.1	12	42.9	12	70.6	229	64.7
1 year -	Leaving	2	1.5	.	.	.	.	3	3.5	.	.	1	5.9	6	1.7
	Remaining	89	66.4	34	50.7	16	80.0	60	70.6	12	42.9	11	64.7	223	63.0
18 months -	Leaving	1	0.7	1	1.5	1	5.0	.	.	.	.	.	.	3	0.8
	Remaining at 2 years	88	65.7	33	49.3	15	75.0	60	70.6	12	42.9	11	64.7	220	62.1

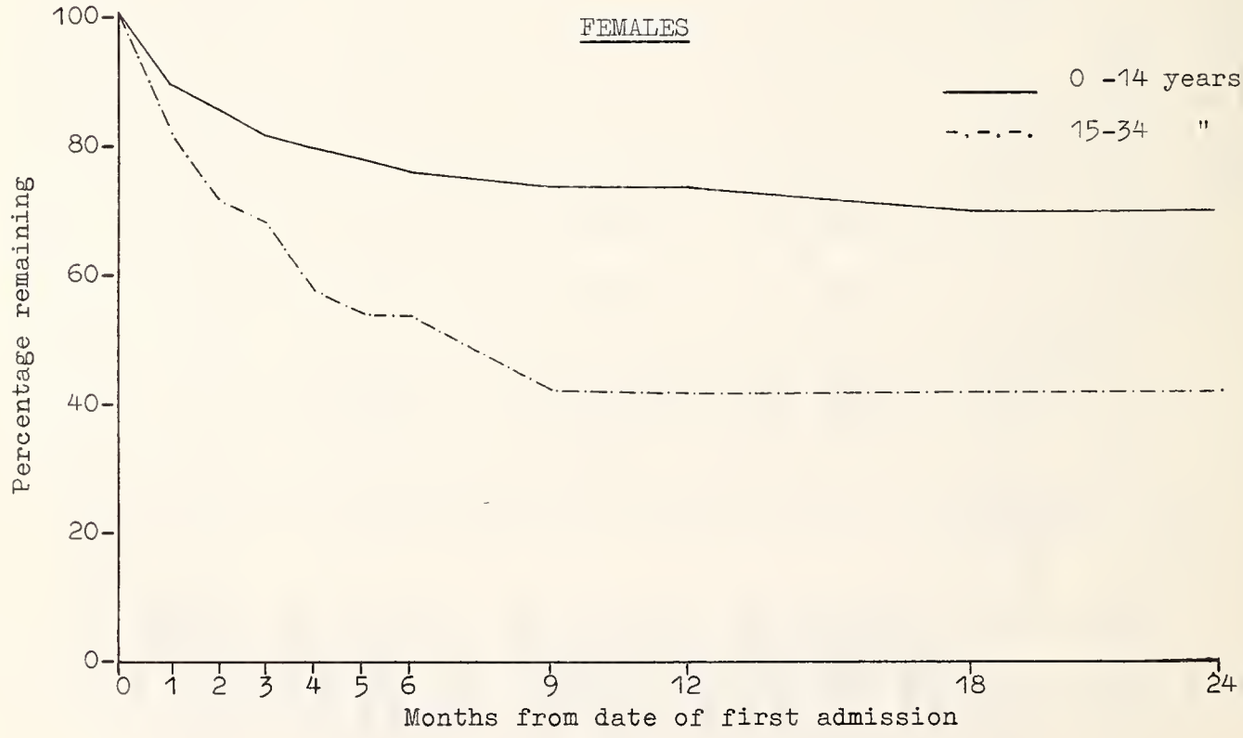
* Three people aged 65 years and over have not been tabulated separately by age-group but have been included in the "both sexes" totals

FIGURE 8

MENTAL DEFICIENCY

First hospitalization - Percentages of patients discharged or dying in successive time intervals





4. OUTCOME OF FIRST DISCHARGE

Differences in the first readmission rates of males and females are shown below in Table 4.1.

TABLE 4.1 : OUTCOME OF FIRST DISCHARGE BY SEX AND DIAGNOSTIC GROUP

I.C.D. Nos.	Diagnostic group	Outcome	MALE		FEMALE	
			No.	%	No.	%
300	Schizophrenic disorders-	Readmitted	78	32.1	77	29.1
		Not readmitted	165	67.9	188	70.9
301-302	Manic-depressive reaction and involutional melancholia-	Readmitted	53	26.0	73	26.5
		Not readmitted	151	74.0	202	73.5
304-306	Senile, presenile, and cerebral arteriosclerotic psychosis-	Readmitted	14	24.1	18	20.0
		Not readmitted	44	75.9	72	80.0
307 & 322	Alcoholism, all forms-	Readmitted	84	31.5	28	41.8
		Not readmitted	183	68.5	39	58.2
310-318	Psychoneurosis-	Readmitted	89	24.1	126	20.4
		Not readmitted	281	75.9	492	79.6
325	Mental deficiency-	Readmitted	9	13.2	8	23.5
		Not readmitted	59	86.8	26	76.5
-	All other diagnoses-	Readmitted	63	24.4	51	29.0
		Not readmitted	195	75.6	125	71.0
	Totals	Readmitted	390	26.6	381	25.0
		Not readmitted	1078	73.4	1144	75.0

There was a fairly consistent relationship between readmission and non-readmission rates between the sexes. For all forms of alcoholism the female readmission rate was higher at 41.8 per cent than the male rate at 31.5 per cent, but this difference had no statistical significance. There was also an apparent difference in male (13.2 per cent) and female (23.5 per cent) readmission rates for mental deficiency but the numbers of cases involved were too small to yield a conclusive result.

TABLE 4.2 : OUTCOME OF FIRST DISCHARGE BY SEX

Outcome	Total		Males		Females	
	Number	Per cent	Number	Per cent	Number	Per cent
Readmitted	771	25.8	390	26.6	381	25.0
Not readmitted	2222	74.2	1078	73.4	1144	75.0
Total first discharges	2993	100.0	1468	100.0	1525	100.0

There was no significant difference in first readmission rates between males and females.

Table 4.3 shows the outcome of first discharge by marital status. As nearly all mental deficiency patients are single the total numbers and percentages excluding this diagnostic group are also shown.

It is sometimes held that there is less likelihood of readmission for married patients compared with those who face rehabilitation without the support of a spouse. This study, however, provided little evidence to substantiate the thesis. For all diagnoses excluding mental deficiency 26.7 per cent of the single patients, 25.3 per cent of the married patients and 25.2 per cent of patients who were separated, divorced or widowed were readmitted. There was a difference for alcoholism, where 29.0 per cent of married patients were readmitted while 37.1 per cent of single and 38.7 per cent of separated, divorced or widowed patients were readmitted, but this was of small statistical significance. For schizophrenic disorders there was virtually no difference between the three marital states, while for manic-depressive reaction and involutional melancholia readmission was less frequent in single than in other patients. For psychoneurosis, single and married readmission rates were on a par, but patients who had been married had somewhat less chance of readmission.

TABLE 4.3 : OUTCOME OF FIRST DISCHARGE BY MARITAL STATUS AND DIAGNOSTIC GROUPS

I.C.D. Nos.	Diagnostic group and outcome	Single		Married		Separated, Divorced, Widowed	
		No.	%	No.	%	No.	%
300	Schizophrenic disorders -						
	Readmitted	75	30.7	66	30.0	14	31.8
	Not readmitted	169	69.3	154	70.0	30	68.2
301-302	Manic-depressive reaction and involutional melancholia -						
	Readmitted	20	23.3	87	26.4	19	29.7
	Not readmitted	66	76.7	242	73.6	45	70.3
304-306	Senile, presenile, and cerebral arteriosclerotic psychosis -						
	Readmitted	2	12.5	16	25.4	14	20.3
	Not readmitted	14	87.5	47	74.6	55	79.7
307 & 322	Alcoholism, all forms -						
	Readmitted	36	37.1	47	29.0	29	38.7
	Not readmitted	61	62.9	115	71.0	46	61.3
310-318	Psychoneurosis -						
	Readmitted	51	22.2	142	22.5	22	17.3
	Not readmitted	179	77.8	489	77.5	105	82.7
325	Mental deficiency -						
	Readmitted	17	17.3	.	.	.	.
	Not readmitted	81	82.7	3	.	1	.
-	All other diagnoses -						
	Readmitted	67	28.8	40	24.2	7	19.4
	Not readmitted	166	71.2	125	75.8	29	80.6
	Totals - Readmitted	268	26.7	398	25.3	105	25.2
	Totals - Not readmitted	736	73.3	1175	74.7	311	74.8
Totals (excluding mental deficiency)	Readmitted	251	27.7	398	25.4	105	25.3
	Not readmitted	655	72.3	1172	74.6	310	74.7

Table 4.4 shows that the outcome of first discharge is very little affected by the age of patients. The only diagnostic group displaying a sizeable difference between different age-groups was psychoneurosis, where people aged 15-34 years had a smaller readmission rate (18.8 per cent) than people aged between 35 and 64 years (24.4 per cent).

TABLE 4.4 : OUTCOME OF FIRST DISCHARGE BY DIAGNOSTIC GROUP AND AGE-GROUP

I.C.D. Nos.	Diagnostic group and outcome	Age-group									
		Total		0-14		15-34		35-64		65 & over	
		No.	%	No.	%	No.	%	No.	%	No.	%
300	Schizophrenic disorders -										
	Readmitted	155	30.5	1	20.0	88	31.2	64	30.3	2	20.0
	Not readmitted	353	69.5	4	80.0	194	68.8	147	69.7	8	80.0
301-302	Manic-depressive reaction and involutional melancholia										
	Readmitted	126	26.3	.	.	21	24.7	87	26.3	18	28.6
	Not readmitted	353	73.7	.	.	64	75.3	244	73.7	45	71.4
304-306	Senile, presenile, and cerebral arteriosclerotic psychosis -										
	Readmitted	32	21.6	.	.	.	.	7	28.0	25	20.3
	Not readmitted	116	78.4	.	.	.	.	18	72.0	98	79.7
307 & 322	Alcoholism, all forms -										
	Readmitted	112	33.5	.	.	16	39.0	95	34.5	1	5.6
	Not readmitted	222	66.5	.	.	25	61.0	180	65.5	17	94.4
310-318	Psychoneurosis -										
	Readmitted	215	21.8	.	.	69	18.8	139	24.4	7	14.9
	Not readmitted	773	78.2	4	100.0	298	81.2	431	75.6	40	85.1
325	Mental deficiency -										
	Readmitted	17	16.7	3	6.5	12	24.5	2	28.6	.	.
	Not readmitted	85	83.3	43	93.5	37	75.5	5	71.4	.	.
-	All other diagnoses -										
	Readmitted	114	26.3	3	17.6	74	27.0	36	27.1	1	10.0
	Not readmitted	320	73.7	14	82.4	200	73.0	97	72.9	9	90.0
	Totals -										
	Readmitted	771	25.8	7	9.7	280	25.5	430	27.7	54	19.9
	Not readmitted	2222	74.2	65	90.3	818	74.5	1122	72.3	217	80.1

TABLE 4.5 : OUTCOME OF FIRST DISCHARGE BY AVAILABILITY OF OUTPATIENT FACILITIES

Psychiatric outpatient facilities	Outcome	Total	Schizophrenic disorders	Manic-depressive reaction and involutional melancholia	Senile, presenile, & cerebral arteriosclerotic psychosis	Alcoholism, all forms	Psychoneurosis	Mental deficiency	All other diagnoses
Available	Readmitted	622	115	101	26	98	168	15	99
	Not readmitted	1729	261	266	94	183	611	56	258
	Total	2351	376	367	120	281	779	71	357
	% readmitted	26.5	30.6	27.5	21.7	34.9	21.6	21.1	27.7
Not available	Readmitted	149	40	25	6	14	47	2	15
	Not readmitted	493	92	87	22	39	162	29	62
	Totals	642	132	112	28	53	209	31	77
	% readmitted	23.2	30.3	22.3	21.4	26.4	22.5	6.5	19.5

As it is sometimes held that readmission to mental hospital would be reduced if adequate psychiatric care could be provided through outpatient facilities, it was with interest that the information in Table 4.5 was analysed to see if there was evidence in support of this contention. In fact, there was none, but it well may be that limitations in the data to some extent affected the result.

In the first place, the town in which people lived after discharge was not known with certainty. What was known was where people lived at the time of admission. The analysis has been made on the assumption that people returned to the same town after discharge. Such an assumption, while no doubt sound for the great majority of cases, will, of course, not apply to every case. Second and more important, these figures tell what happened two or three years ago. Although there were outpatient facilities available this does not necessarily mean that they were adequate or that, if they were, a good referral system ensured that patients were aware of the service and were encouraged to use it.

There was little difference in the readmission rates for schizophrenic disorders, psychoneurosis or senile, presenile, and cerebral arteriosclerotic psychosis.

Although there was a marked difference in readmission rates for mental deficiency the higher readmission rate for the districts in which outpatient facilities were available was probably due to short stay patients returning for a further period of hospitalization over holiday time. The nearness to which parents lived to psychopaedic hospitals was probably more important than the availability or otherwise of outpatient facilities.

In the three remaining diagnostic groups, manic-depressive and involutional melancholia, all forms of alcoholism and all other diagnoses, the readmission rates for those living in towns with psychiatric outpatients services were actually higher than those living elsewhere. It would appear, then, that rather than reduce readmission to hospital, outpatient clinics may in fact promote further hospitalization. If this is the case it should not be inferred that outpatient treatment is in itself inadequate, but that continuing contact with an outpatient clinic facilitates readmission if and when readmission becomes necessary.

TABLE 4.6 : OUTCOME OF FIRST DISCHARGE BY LENGTH OF FIRST PERIOD OF HOSPITALIZATION

Length of first period of hospitalization	Outcome	Total		Schizophrenic disorders		Manic-depressive reaction & involutional melancholia		Senile, presenile, & cerebral arteriosclerotic psychosis		Alcoholism all forms		Psychoneurosis		Mental deficiency		All other diagnoses	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Under 1 month	Readmitted	307	27.3	48	38.7	40	27.8	10	18.5	55	38.7	105	23.3	7	19.4	42	24.1
	Not readmitted	817	72.7	76	61.3	104	72.2	44	81.5	87	61.3	345	76.7	29	80.6	132	75.9
	Total	1124	.	124	.	144	.	54	.	142	.	450	.	36	.	174	.
1 month and under 2 months	Readmitted	200	26.5	51	36.2	36	25.7	6	24.0	31	35.6	52	20.2	4	18.2	20	24.4
	Not readmitted	554	73.5	90	63.8	104	74.3	19	76.0	56	64.4	205	79.8	18	81.8	62	75.6
	Total	754	.	141	.	140	.	25	.	87	.	257	.	22	.	82	.
2 months and under 3 months	Readmitted	115	25.9	28	31.5	18	20.9	10	45.5	11	30.6	34	25.0	1	9.1	13	24.5
	Not readmitted	329	74.1	61	68.5	68	79.1	12	54.5	36	69.4	102	75.0	10	90.9	40	75.5
	Total	444	.	89	.	86	.	22	.	47	.	136	.	11	.	53	.
3 months and under 6 months	Readmitted	117	24.7	20	20.6	24	30.4	5	20.0	13	28.3	23	18.4	2	12.5	30	35.3
	Not readmitted	356	75.3	77	79.4	55	69.6	20	80.0	33	71.7	102	81.6	14	87.5	55	64.6
	Total	473	.	97	.	79	.	25	.	46	.	125	.	16	.	85	.
6 months and under 2 years	Readmitted	32	16.2	8	14.0	8	26.7	1	4.5	2	16.7	1	5.0	3	17.6	9	22.5
	Not readmitted	166	83.8	49	86.0	22	73.3	21	95.5	10	83.3	19	95.0	14	82.4	31	77.5
	Total	198	.	57	.	30	.	22	.	12	.	20	.	17	.	40	.
Totals	Readmitted	771	25.8	155	30.5	126	26.3	32	21.6	112	33.5	215	21.8	17	16.7	114	26.3
	Not readmitted	2222	74.2	353	69.5	353	73.7	116	78.4	222	66.5	773	78.2	85	83.3	320	73.7
	Total	2993	.	508	.	479	.	148	.	334	.	988	.	102	.	434	.

The relationship between the length of stay in hospital and readmission is shown in Table 4.6. For all cases, irrespective of diagnosis, 27.3 per cent of those who had been in hospital for less than a month were subsequently re-admitted. Slightly lower rates of readmission occurred in those who had been hospitalized for one and under two months (26.5 per cent), two and under three months (25.9 per cent), and three and under 6 months (24.7 per cent). The proportion was noticeably smaller for people who had been in hospital for six months and under two years, but it should be remembered that as the study lasted for only two years after admission, people discharged after a long period in hospital had less time in which to be readmitted than those who were discharged after a month or two in hospital.

At first sight it would appear that in terms of chances of readmission very little benefit accrues alone from longer hospitalization. People who had been in hospital several months had very nearly the same chances of readmission as had those in hospital for less than a month. If this were the only factor involved the figures might provide strong evidence that nearly all patients should be discharged within a month. The true position is, of course, that the figures do not make allowance for the degree of illness involved. If patients with the more severe forms of illness were discharged within a month it would be likely that the readmission rate would be very much higher than the average of 27 per cent shown in the table.

Most of the individual diagnostic groups conform to the general pattern. The chances of readmission were not greatly reduced by a longer stay in hospital for manic-depressive reaction and involutional melancholia, alcoholism or psychoneurosis. Such was not the case for schizophrenic disorders, however, where the chances of readmission for those in hospital under one month were nearly twice as high as for those who had been in hospital for between three and six months.

To sum up, it appears that for manic-depressive reaction and involutional melancholia, for all forms of alcoholism and for psychoneurosis, three diagnostic categories which together accounted for nearly 60 per cent of all readmissions, the length of time the patient was initially in hospital had little bearing on the chances of readmission. For schizophrenic disorders longer hospitalization was associated with less chance of readmission.

5. AGGREGATE STAY

Table 5.1 shows the total time spent in hospital during the two years over which the study was made. The time intervals are shown as twentieths of two years.

TABLE 5.1 : AGGREGATE STAY BY DIAGNOSTIC GROUP - NUMBERS AND PERCENTAGES

Aggregate stay in days	% of 2 years	All cases		Schizophrenic disorders		Manic-depressive reaction & involutional melancholia		Senile, presenile, & cerebral arterio-sclerotic psychosis		Alcoholism all forms		Psychoneurosis		Mental deficiency		All other diagnoses	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1 - 37	- 5	1216	30.4	115	20.0	141	27.8	188	27.6	115	32.3	428	42.5	50	14.1	179	34.4
38 - 73	- 10	748	18.7	115	20.0	131	25.8	73	10.7	79	22.2	244	24.2	19	5.4	87	16.7
74 - 110	- 15	493	12.3	92	16.0	76	15.0	53	7.8	65	18.3	137	13.6	16	4.5	54	10.4
111 - 146	- 20	281	7.0	45	7.8	46	9.1	43	6.3	24	6.7	74	7.3	7	2.0	42	8.1
147 - 183	- 25	191	4.8	40	7.0	22	4.3	44	6.5	13	3.7	37	3.7	8	2.3	27	5.2
184 - 219	- 30	123	3.1	28	4.9	13	2.6	28	4.1	5	1.4	35	3.5	4	1.1	10	1.9
220 - 292	- 40	179	4.5	29	5.1	27	5.3	54	7.9	16	4.5	18	1.8	8	2.3	27	5.2
293 - 365	- 50	108	2.7	21	3.7	16	3.2	34	5.0	5	1.4	11	1.1	7	2.0	14	2.7
366 - 438	- 60	49	1.2	13	2.3	6	1.2	7	1.0	4	1.1	5	0.5	4	1.1	10	1.9
439 - 511	- 70	33	0.8	5	0.9	7	1.4	6	0.9	3	0.8	2	0.2	5	1.4	5	1.0
512 - 621	- 85	28	0.7	5	0.9	2	0.4	10	1.5	3	0.8	1	0.1	3	0.8	4	0.8
622 - 730	-100	31	0.8	7	1.2	2	0.4	13	1.9	3	0.8	.	.	3	0.8	3	0.6
Still in		520	13.0	59	10.3	18	3.6	128	18.8	21	5.9	16	1.6	220	62.1	58	11.2
Totals		4000	.	574	.	507	.	681	.	356	.	1008	.	354	.	520	.

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